GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

April 8, 2004, 15:30:06; Search time 43.3077 Seconds Run on:

(without alignments)

71.766 Million cell updates/sec

Title:

US-09-787-443A-19

Perfect score:

11

Sequence:

1 AEGGKKKKMRA 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched:

1586107 seqs, 282547505 residues

Word size :

Total number of hits satisfying chosen parameters:

22883

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database :

A Geneseq_29Jan04:*

- 1: geneseqp1980s:*
- 2: geneseqp1990s:*
- 3: geneseqp2000s:*
- geneseqp2001s:* 4:
- geneseqp2002s:* 5:
- geneseqp2003as:* 6:
- geneseqp2003bs:* 7:
- geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		용			•					
Result		Query								
No.	Score	Match	Length	DB	ID		Description			
					~~~~~~~		700E47	NICON.	· ·	- <del></del>
1	11	100.0	11	3	AAY88547		Aay88547	NCAM	1 1g.	L
2	11	100.0	11	5	ABG69347	•	Abg69347	Huma	n ne	∍u
3	6	54.5	11	2	AAR60841		Aar60841	Poly	oxi	ne
4	5	45.5	11	4	ABP14556		Abp14556	VIH	A03	s
5	5	45.5	11	4	ABP14558		Abp14558	HIV	A03	s
6	5	45.5	11	4	ABP22767		Abp22767	HIV	A11	m
7	5	45.5	11	4	ABP17206		Abp17206	HIV	B27	s
8	5	45.5	11	4	ABP14557		Abp14557	HIV	A03	s
q.	5	45.5	11	4	ABP20732		Abp20732	HIV	A03	m

10	5	45.5	11	4	ABP20406	Abp20406 HIV A03 m
11	5	45.5	11	4	ABP20558	Abp20558 HIV A03 m
12	5	45.5	11	4	ABP22878	Abp22878 HIV All m
13	5	45.5	11	4	ABP17204	Abp17204 HIV B27 s
14	5	45.5	11	4	ABP17205	Abp17205 HIV B27 s
15	5	45.5	11	5	ABB74598	Abb74598 Transcrip
16	5	45.5	11	5	ABB74599	Abb74599 Transcrip
17	5	45.5	11	6	ABU69054	Abu69054 Intercell
18	5	45.5	11	6	ABU69005	Abu69005 Intercell
19	5 5	45.5	11 11	6 6	ABU69004 ABU69056	Abu69004 Intercell Abu69056 Intercell
20 21	4	45.5 36.4	11	2	AAR30180	Abd09030 Intelcell Aar30180 PPI-2:T32
22	4	36.4	11	2	AAR55163	Aar55163 Fragment
23	4	36.4	11	2	AAR72301	Aar72301 Anti-HIV
24	4	36.4	11	2	AAR85318	Aar85318 Human ret
25	4	36.4	11	2	AAW24438	Aaw24438 Nucleic a
26	4	36.4	11	2	AAW38865	Aaw38865 Delivery
27	4	36.4	11	2	AAW38785	Aaw38785 Delivery
28	4	36.4	11	2	AAW38822	Aaw38822 Delivery
29	4	36.4	11	2	AAW26074	Aaw26074 M32 deriv
30	4	36.4	11	2	AAW16616	Aaw16616 Phosphoin
31	4	36.4	11	2	AAW86735	Aaw86735 Anticoagu
32	4	36.4	11	2	AAW77457	Aaw77457 Lipophili
33	4	36.4	11	3	AAY88559	Aay88559 NCAM Ig1
34	4	36.4	11	3	AAY88558	Aay88558 NCAM Ig1
35	4	36.4	11	3	AAY79943	Aay79943 Beta-amyl
36	4	36.4	11	3	AAY90160	Aay90160 UPAR targ
37	4	36.4	11	3	AAY95530	Aay95530 Transacti
38	4	36.4	11	3	AAB29168	Aab29168 Peptide #
39	4	36.4	11 11	4 4	AAB50076 AAM42176	Aab50076 csk tyros Aam42176 Human pol
40	4 4	36.4 36.4	11	4	AAM42170 AAB31770	Aab31770 Amino aci
41 42	4	36.4	11	4	ABP19373	Abp19373 HIV B62 s
43	4	36.4	11	4	ABP13804	Abp13804 HIV A02 s
44	4	36.4	11	4	ABP17176	Abp17176 HIV B27 s
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46	4	36.4	11	5	AAU76079	Aau76079 Nocicepti
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48	4	36.4	11	5	AAU96727	Aau96727 Molecular
49	4	36.4	11	5	ABB74600	Abb74600 Transcrip
50	4	36.4	11	5	ABB74327	Abb74327 Bipartite
51	4	36.4	11	5	ABG67641	Abg67641 Human ADP
52	4	36.4	11	5	ABG70612	Abg70612 [Lys]11 1
53	4	36.4	11	6	ABP98787	Abp98787 Peptide #
54	4	36.4	11	6	AAO27080	Aao27080 Fibrinoge
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56	4	36.4	11	6	ADA18540	Ada18540 Human alp Ada26448 Suitable
57 58	4	36.4 36.4	11 11	6 6	ADA26448 ADA23765	Ada23765 Alzheimer
58 59	4 4	36.4 36.4	11	7	ADA23703 ADC35041	Add23703 Al2Nelmer Add35041 RhoA prot
60	4	36.4	11	7	ADC35041 ADC35004	Adc35041 Rho-like
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62	3	27.3	11	2	AAR24537	Aar24537 Sequence
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68	3	27.3	11	2	AAR41837	Aar41837 Phospholi
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70	3	27.3	11	2	AAR41844	Aar41844 Phospholi
71	3	27.3	11	2	AAR41830	Aar41830 Phospholi
72	3	27.3	11	2	AAR41843	Aar41843 Phospholi
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74	3	27.3	11	2	AAR41853	Aar41853 Phospholi
75	3	27.3	11	2	AAR41845	Aar41845 Phospholi
76	3	27.3	11	2	AAR41838	Aar41838 Phospholi
77	3	27.3	11	2	AAR41840	Aar41840 Phospholi
78	3	27.3	11	2	AAR41847	Aar41847 Phospholi
79	3	27.3	11	2	AAR41841	Aar41841 Phospholi
80	3	27.3	11	2	AAR41849	Aar41849 Phospholi
81	3	27.3	11	2	AAR41850	Aar41850 Phospholi
82	3	27.3	11	2	AAR41851	Aar41851 Phospholi
83	3	27.3	11	2	AAR41836	Aar41836 Phospholi
84	3	27.3	11	2	AAR41852	Aar41852 Phospholi
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86	3	27.3	11	2	AAR41848	Aar41848 Phospholi
87	3	27.3	11	2	AAR36639	Aar36639 Group I s
88	3	27.3	11	2	AAR43429	Aar43429 Ro/SSA ep
89	3	27.3	11	2	AAR31493	Aar31493 P3 OF 31-
90	3	27.3	11	2 .	AAR61919	Aar61919 PLP pepti
91	3	27.3	11	2	AAR61920	Aar61920 PLP pepti
92	3	27.3	11	2	AAR60400	Aar60400 Antiproli
93	3	27.3	11	2	AAR60401	Aar60401 Antiproli
94	3	27.3	11	2	AAR70274	Aar70274 Thrombosp
95	3	27.3	11	2	AAR70297	Aar70297 Subpeptid
96	3	27.3	11	2	AAR72299	Aar72299 Anti-HIV
97	3	27.3	11	2	AAR79718	Aar79718 Optimal p
98	3	27.3	11	2	AAR90267	Aar90267 Ion-chann
99	3	27.3	11	2	AAR71901	Aar71901 Cladospor
100	3	27.3	11	2	AAR66819	Aar66819 Mouse syn

## ALIGNMENTS

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RESULT 1
AAY88547
ID
    AAY88547 standard; peptide; 11 AA.
XX
AC
    AAY88547;
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DT
     07-AUG-2000 (first entry)
XX
DE
     NCAM Igl binding peptide #19.
XX
KW
     NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW.
     treatment; prosthetic nerve guide; treatment; nervous system.
KW
XX
os
     Synthetic.
XX
```

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PN
     WO200018801-A2.
XX
PD
     06-APR-2000.
XX
PF
     23-SEP-1999;
                    99WO-DK000500.
XX
     29-SEP-1998;
                    98DK-00001232.
PR
     29-APR-1999;
                    99DK-00000592.
PR
XX
PA
     (RONN/) RONN L C B.
     (BOCK/) BOCK E.
PA
     (HOLM/) HOLM A.
PA
     (OLSE/) OLSEN M.
PA
     (OSTE/) OSTERGAARD S.
PA
     (JENS/) JENSEN P H.
PA
PA
     (POUL/) POULSEN F M.
     (SORO/) SOROKA V.
PA
     (RALE/) RALETS I.
PA
     (BERE/) BEREZIN V.
PA
XX
```

Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH; Poulsen FM, Soroka V, Ralets I, Berezin V;

WPI; 2000-293111/25.

PI PI

XX DR

XX

PT

PT PT

XX

PS XX CC

XX

Compositions that bind neural cell adhesion molecules useful for treating disorders of the nervous system and muscles e.g. Alzheimer's and Parkinson's diseases.

Example 4; Page 25; 119pp; English.

Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule. NCAM is found in three forms, two of which are transmembrane forms, while the third is attached via a lipid anchor to the cell membrane. All three NCAM forms have an extracellular structure consisting five immunoglobulin domains (Iq domains). The Iq domains are numbered 1 to 5 from the Nterminal. The present sequence represents a peptide which binds to the NCAM Iq1 domain. The peptide can be used in a compound which binds to NCAM-Ig1/Ig2 domains, and is capable of stimulating or promoting neurite outgrowth from NCAM presenting cells, and is also capable of promoting the proliferation of NCAM presenting cells. The compound may be used in the treatment of normal, degenerated or damaged NCAM presenting cells. The compound may in particular be used to treat diseases of the central and peripheral nervous systems such as post operative nerve damage, traumatic nerve damage, impaired myelination of nerve fibres, conditions resulting from a stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis, nerve degeneration associated with diabetes mellitus, disorders affecting the circadian clock or neuro-muscular transmission and schizophrenia. Conditions affecting the muscles may also be treated with the compound, such as conditions associated with impaired function of neuromuscular connections (e.g. genetic or traumatic shock or traumatic atrophic muscle disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also be treated using the compound. The compound is used in a prosthetic nerve guide, and also to stimulate the ability to learn, and to stimulate the memory of a subject

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100.0%; Score 11; DB 3; Length 11;
  Query Match
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                                                                             0;
            11; Conservative
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                                                                 0; Gaps
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Qу
              1 AEGGKKKKMRA 11
Db
RESULT 2
ABG69347
     ABG69347 standard; peptide; 11 AA.
ID
XX
AC
     ABG69347;
XX
DT
     21-OCT-2002 (first entry)
XX
DE
     Human neural cell adhesion molecule (NCAM) peptide #19.
XX
KW
     Human; neural cell adhesion molecule; NCAM; heart muscle cell survival;
KW
     acute myocardial infarction; central nervous system disorder; stroke;
KW
     peripheral nervous system disorder; postoperative nerve damage;
KW
     traumatic nerve damage; spinal cord injury; nerve fibre; schizophrenia;
KW
     postischaemic damage; multiinfarct dementia; multiple sclerosis;
     nerve degeneration; diabetes mellitus; neuro-muscular degeneration;
KW
KW
     Alzheimer's disease; Parkinson's disease;
     Huntington's disease. atrophic muscle disorder; gonad degeneration;
KW
KW
     nephrosis.
XX
OS
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XX
PN
     WO200247719-A2.
XX
PD
     20-JUN-2002.
XX
PF
     12-DEC-2001; 2001WO-DK000822.
XX
PR
     12-DEC-2000; 2000DK-00001863.
XX
PA
     (ENKA-) ENKAM PHARM AS.
XX
PΙ
     Bock E, Berezin V, Kohler LB;
XX
DR
     WPI; 2002-583473/62.
XX
PT
     Use of a compound comprising a peptide of neural cell adhesion molecule,
PT
     in the preparation of medicament for preventing death of cells presenting
PT
     NCAM or NCAM ligand and treating central nervous system diseases.
XX
PS
     Disclosure; Page 16; 57pp; English.
XX
CC
     The invention relates to use of a compound (I) comprising a peptide which
CC
     comprises at least 5 contiguous amino acid residues of a sequence of the
CC
     neural cell adhesion molecule (NCAM), its fragment, variant or its mimic,
CC
     for the preparation of a medicament for preventing death of cells
```

SQ

Sequence 11 AA;

```
CC
     presenting the NCAM or an NCAM ligand. (I) is useful in the preparation
CC
     of a medicament for preventing death of cells presenting the NCAM or an
CC
     NCAM ligand. The medicament is for the stimulation of the survival of
CC
    heart muscle cells, such as survival after acute myocardial infarction.
CC
     The medicament is for the treatment of diseases or conditions of the
     central and peripheral nervous system, such as postoperative nerve
CC
CC
     damage, traumatic nerve damage, e.g. resulting from spinal cord injury,
CC
     impaired myelination of nerve fibres, postischaemic damage, e.g.
CC
     resulting from a stroke, multiinfarct dementia, multiple sclerosis, nerve
CC
     degeneration associated with diabetes mellitus, neuro-muscular
CC
    degeneration, schizophrenia, Alzheimer's disease, Parkinson's disease and
    Huntington's disease. The medicament is for the treatment of diseases or
CC
CC
     conditions of the muscles including conditions with impaired function of
CC
     neuro-muscular connections, such as genetic or traumatic atrophic muscle
CC
    disorders, and for the treatment of diseases of conditions of various
CC
     organs, such as degenerative conditions of the gonads, pancreas (e.g.
     diabetes mellitus type I and II) and kidney (e.g. nephrosis). ABG69329-
CC
CC
    ABG69352 represent human NCAM peptides of the invention
XX
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 Query Match
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                                   Score 11; DB 5; Length 11;
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 Best Local Similarity
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                                 0; Mismatches
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                                                                             0;
 Matches
                                                   0; Indels
           1 AEGGKKKKMRA 11
Qу
              1 AEGGKKKKMRA 11
Db
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ID
    AAR60841 standard; peptide; 11 AA.
XX
AC
     AAR60841;
XX
DT
     25-MAR-2003 (revised)
DT
     05-JUN-1995
                 (first entry)
XX
DE
    Polyoxime octa-GXL baseplate.
XX
KW
     Polyoxime; homopolyoxine; heteropolyoxime; peptide presentation;
KW
     cell imaging; complementary orthogonal specifically active molecule;
KW
     COSM; baseplate; immunogen.
XX
OS
     Synthetic.
XX
FH
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PN
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PD
     10-NOV-1994.
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PF
     05-MAY-1994;
                    94WO-IB000093.
XX
PR
     05-MAY-1993;
                    93US-00057594.
                    93US-00105904.
PR
     31-AUG-1993;
PR
     31-AUG-1993;
                    93US-00114877.
XX
     (ROSE/) ROSE K.
PΑ
     (OFFO/) OFFORD R E.
PA
XX
ΡI
     Rose K, Offord RE;
XX
DR
     WPI; 1994-357918/44.
XX
PT
     Homo- and hetero-polyoxime compounds and their preparation - used for
     peptide presentation to antibodies and in cell imaging etc.
PT
XX
PS
     Disclosure; Page 53; 85pp; English.
XX
CC
     Peptides given in AAR60833-62 are used as baseplates and COSMs for the
CC
     preparation of polyoximes having varying spacing, charge, lipophilicity,
CC
     valency, conformational restraints, solubility and other physical and
     biological properties. An octa-GXL baseplate structure is given in
CC
CC
     AAR60841. (Updated on 25-MAR-2003 to correct PN field.)
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RESULT 4 ABP14556

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XX
AC
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XX
DT
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002
                 (first entry)
XX
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DE
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     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
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     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
     12-APR-2001.
PD
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
                    99US-00412863.
PR
     05-OCT-1999;
XX
     (EPIM-) EPIMMUNE INC.
PΑ
XX
                          Southwood S, Livingston BD, Chesnut R;
PI
               Sidney J,
     Sette A,
                          Kubo RT, Grey HM;
PI
     Baker DM, Celis E,
XX
     WPI; 2001-354887/37.
DR
XX
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
PT
XX
     Claim 32; Page 166; 448pp; English.
PS
XX
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
CC
     compositions. There is evidence that the immune response to whole
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
CC
     an group-based vaccine may be selected from conserved regions of viral or
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
CC
     combine selected groups (CTL and HTL), and further, to modify the
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
```

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Qу
              11111
Db
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     ABP14558;
AC
XX
DT
     11-SEP-2003 (revised)
DT
     15-JUL-2002 (first entry)
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     HIV A03 super motif gag peptide #120.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
     vaccine; HIV infection; immunisation; virucide.
KW
XX
os
     Human immunodeficiency virus 1.
XX
    WO200124810-A1.
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XX
PD
     12-APR-2001.
XX
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     05-OCT-2000; 2000WO-US027766.
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     (EPIM-) EPIMMUNE INC.
XX
PΙ
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                          Southwood S, Livingston BD, Chesnut R;
PΙ
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
DR
     WPI; 2001-354887/37.
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 166; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
     particularly when compared to the use of whole antigens in vaccine
CC
CC
     compositions. There is evidence that the immune response to whole
```

XX

```
antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
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  Best Local Similarity
                          100.0%; Pred. No. 1.2e+02;
  Matches
             5; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                              0;
                                                                 0;
                                                                     Gaps
            3 GGKKK 7
Qy
              5 GGKKK 9
Db
RESULT 6
ABP22767
ID
    ABP22767 standard; peptide; 11 AA.
XX
AC
     ABP22767;
XX
DT
     11-SEP-2003
                 (revised)
DT
     15-JUL-2002
                  (first entry)
XX
DE
    HIV All motif gag peptide #146.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
    Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
                    99US-00412863.
PR
     05-OCT-1999;
XX
PΑ
     (EPIM-) EPIMMUNE INC.
XX
PI
                          Southwood S, Livingston BD, Chesnut R;
     Sette A, Sidney J,
PI
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
DR
    WPI; 2001-354887/37.
```

```
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 335; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
     appropriate, for the target disease. Similar engineering of the response
CC
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
     Sequence 11 AA;
SQ
  Query Match
                          45.5%;
                                  Score 5; DB 4; Length 11;
                          100.0%;
  Best Local Similarity
                                  Pred. No. 1.2e+02;
 Matches
             5; Conservative
                                 0; Mismatches
                                                                 0;
                                                                              0;
                                                   0;
                                                       Indels
                                                                     Gaps
Qу
            3 GGKKK 7
              Db
            1 GGKKK 5
RESULT 7
ABP17206
    ABP17206 standard; peptide; 11 AA.
XX
AC
    ABP17206;
XX
DT
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002
                  (first entry)
XX
DE
    HIV B27 super motif gag peptide #82.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
     vaccine; HIV infection; immunisation; virucide.
ΚW
XX
OS
     Human immunodeficiency virus 1.
XX
```

```
PN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
PF
     05-OCT-2000; 2000WO-US027766.
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PΑ
     (EPIM-) EPIMMUNE INC.
XX
PΙ
                          Southwood S, Livingston BD, Chesnut R;
     Sette A,
               Sidney J,
PΙ
                          Kubo RT, Grey HM;
    Baker DM, Celis E,
XX
DR
     WPI; 2001-354887/37.
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 221; 448pp; English.
XX
     The present invention describes a composition (I) comprising a prepared
CC
    human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
     appropriate, for the target disease. Similar engineering of the response
CC
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
    represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
CC
XX
SO
     Sequence 11 AA;
  Query Match
                          45.5%; Score 5; DB 4; Length 11;
                          100.0%; Pred. No. 1.2e+02;
  Best Local Similarity
 Matches
             5: Conservative
                                0; Mismatches
                                                   0;
                                                      Indels
                                                                     Gaps
                                                                             0;
Qу
            3 GGKKK 7
              11111
            4 GGKKK 8
RESULT 8
```

ABP14557
ID ABP14557 standard; peptide; 11 AA.

```
XX
АC
     ABP14557;
XX
DT
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002
                 (first entry)
XX
DΕ
     HIV A03 super motif gag peptide #119.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antiqen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
PF
     05-OCT-2000; 2000WO-US027766.
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PΑ
     (EPIM-) EPIMMUNE INC.
XX
PI
     Sette A, Sidney J,
                          Southwood S, Livingston BD, Chesnut R;
PΙ
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
DR
     WPI; 2001-354887/37.
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 166; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
```

is not possible with traditional approaches. ABP11501 to ABP25412

invention. (Updated on 11-SEP-2003 to standardise OS field)

represent peptide sequences used in the exemplification of the present

CC

CC

CC

XX

```
Query Match
                          45.5%; Score 5; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+02;
  Matches
             5; Conservative
                                0; Mismatches
                                                                              0;
                                                    0; Indels
                                                                  0; Gaps
            3 GGKKK 7
Qу
              5 GGKKK 9
Db
RESULT 9
ABP20732
ID
     ABP20732 standard; peptide; 11 AA.
XX
AC
     ABP20732;
XX
     11-SEP-2003
DT
                  (revised)
DT
     15-JUL-2002
                 (first entry)
XX
     HIV A03 motif gag peptide #395.
DE
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
     12-APR-2001.
PD
XX
PF
     05-OCT-2000; 2000WO-US027766.
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PΑ
     (EPIM-) EPIMMUNE INC.
XX
PΙ
     Sette A, Sidney J,
                          Southwood S, Livingston BD, Chesnut R;
PΙ
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
     WPI; 2001-354887/37.
DR
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 294; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
```

```
allowing for immune escape due to mutations. The groups for inclusion in
     an group-based vaccine may be selected from conserved regions of viral or
CC
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
     combine selected groups (CTL and HTL), and further, to modify the
CC
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          45.5%;
                                  Score 5; DB 4; Length 11;
                          100.0%; Pred. No. 1.2e+02;
  Best Local Similarity
  Matches
             5; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                 0;
                                                                    Gaps
                                                                              0;
            3 GGKKK 7
Qy
              7 GGKKK 11
Db
RESULT 10
ABP20406
    ABP20406 standard; peptide; 11 AA.
XX
AC
     ABP20406;
XX
DТ
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002
                  (first entry)
XX
    HIV A03 motif gag peptide #69.
DE
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antiqen;
KW
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
PN
    WO200124810-A1.
XX
PD
     12-APR-2001.
XX
PF
     05-OCT-2000; 2000WO-US027766.
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PΑ
     (EPIM-) EPIMMUNE INC.
XX
PΙ
              Sidney J,
                          Southwood S, Livingston BD, Chesnut R;
     Sette A,
PI
     Baker DM,
               Celis E,
                          Kubo RT, Grey HM;
XX
DR
     WPI; 2001-354887/37.
XX
```

```
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 288; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
     tumour-associated antigens, which therefore reduces the likelihood of
CC
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          45.5%; Score 5; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+02;
  Matches
            5; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            3 GGKKK 7
Qу
              Db
            1 GGKKK 5
RESULT 11
ABP20558
ID
     ABP20558 standard; peptide; 11 AA.
XX
AC
     ABP20558;
XX
DT
     11-SEP-2003 (revised)
DT
     15-JUL-2002
                 (first entry)
XX
DE
     HIV A03 motif gag peptide #221.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
```

PN

WO200124810-A1.

```
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PΑ
     (EPIM-) EPIMMUNE INC.
XX
PΙ
     Sette A, Sidney J, Southwood S, Livingston BD, Chesnut R;
PI
     Baker DM, Celis E,
                         Kubo RT, Grey HM;
XX
     WPI; 2001-354887/37.
DR
XX
РΤ
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
     peptide groups, useful for vaccinating against HIV-1.
PT
XX
PS
     Claim 32; Page 291; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
     an group-based vaccine may be selected from conserved regions of viral or
CC
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                                  Score 5; DB 4; Length 11;
                          45.5%;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+02;
 Matches
             5; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
Qу
            3 GGKKK 7
              Db
            1 GGKKK 5
RESULT 12
ABP22878
TD
     ABP22878 standard; peptide; 11 AA.
XX
```

```
AC
     ABP22878;
XX
DT
     11-SEP-2003
                  (revised)
                 (first entry)
DT
     15-JUL-2002
XX
     HIV All motif gag peptide #257.
DE
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; qaq; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PΑ
     (EPIM-) EPIMMUNE INC.
XX
PΙ
     Sette A,
              Sidney J,
                          Southwood S, Livingston BD, Chesnut R;
PI
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
     WPI; 2001-354887/37.
DR
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 338; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
     tumour-associated antigens, which therefore reduces the likelihood of
CC
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
     invention. (Updated on 11-SEP-2003 to standardise OS field)
CC
XX
```

SQ

Sequence 11 AA;

```
Best Local Similarity
                          100.0%; Pred. No. 1.2e+02;
             5; Conservative
  Matches
                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                               0;
            3 GGKKK 7
Qу
              11111
Db
            7 GGKKK 11
RESULT 13
ABP17204
     ABP17204 standard; peptide; 11 AA.
XX
AC
     ABP17204;
XX
DT
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002
                 (first entry)
XX
DΕ
     HIV B27 super motif gag peptide #80.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antiqen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
os
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PΑ
     (EPIM-) EPIMMUNE INC.
XX
                          Southwood S, Livingston BD, Chesnut R;
PI
     Sette A, Sidney J,
PI
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
DR
     WPI; 2001-354887/37.
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
     Claim 32; Page 221; 448pp; English.
PS
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
```

45.5%; Score 5; DB 4; Length 11;

Query Match

```
an group-based vaccine may be selected from conserved regions of viral or
     tumour-associated antigens, which therefore reduces the likelihood of
CC
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
                          45.5%; Score 5; DB 4; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+02;
 Matches
             5; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            3 GGKKK 7
Qу
              11111
            6 GGKKK 10
Db
RESULT 14
ABP17205
    ABP17205 standard; peptide; 11 AA.
ID
XX
AC
     ABP17205;
XX
DT
    11-SEP-2003 (revised)
DT
     15-JUL-2002 (first entry)
XX
DE
     HIV B27 super motif gag peptide #81.
XX
     HIV; HIV-1; human immunodeficiency virus; env; pol; qaq; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
KW
XX
     Human immunodeficiency virus 1.
OS
XX
     WO200124810-A1.
PN
XX
PD
     12-APR-2001.
XX
PF
     05-OCT-2000; 2000WO-US027766.
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PΑ
     (EPIM-) EPIMMUNE INC.
XX
                          Southwood S, Livingston BD, Chesnut R;
ΡI
     Sette A,
               Sidney J,
PΙ
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
DR
     WPI; 2001-354887/37.
XX
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
```

```
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 221; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
CC
     antigens is directed largely toward variable regions of the antigen,
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
     appropriate, for the target disease. Similar engineering of the response
CC
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          45.5%;
                                  Score 5; DB 4; Length 11;
                          100.0%; Pred. No. 1.2e+02;
  Best Local Similarity
 Matches
            5; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                             0;
                                                                 0; Gaps
            3 GGKKK 7
Qу
              11111
            4 GGKKK 8
Db
RESULT 15
ABB74598
    ABB74598 standard; peptide; 11 AA.
XX
AC
    ABB74598;
XX
DT
     18-APR-2002 (first entry)
XX
DE
    Transcription factor nuclear localisation signal peptide SEQ ID NO:362.
XX
ΚW
     Fusogenic; nuclear localisation signal; NLS; encapsulation; lipogene;
KW
     liposome; micelle; karyophilic; cytostatic; antitumour; solid tumour;
KW
     peptide-lipid-polynucleotide complex; neoplastic disease; gene therapy;
ΚW
    breast carcinoma; prostate carcinoma.
XX
OS
    Mus sp.
XX
PN
    W0200193836-A2.
XX
```

```
13-DEC-2001.
PD
XX
     08-JUN-2001; 2001WO-US018657.
PF
XX
     09-JUN-2000; 2000US-0210925P.
PR
XX
     (BOUL/) BOULIKAS T.
PA
XX
PI
     Boulikas T:
XX
    WPI; 2002-164295/21.
DR
XX
PT
     Encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with
     nuclear localization signal/fusogenic peptide conjugates into targeted
PT
PT
     liposome complexes.
XX
PS
     Claim 14; Page 76; 107pp; English.
XX
CC
     The present invention describes a method for producing micelles with
     entrapped therapeutic agents. The method comprises: (1) combining
CC
CC
     negatively charged agent with a cationic lipid in a ratio where 30-90 %
CC
     of the negatively charged atoms are neutralised by positive charges on
     lipid molecules to form an electrostatic micelle complex in 20-80 %
CC
CC
     ethanol; and (2) combining the micelle complex of (a) with fusogenic-
CC
     karyophilic peptide conjugates in a 0.0-0.3 ratio, therefore producing
    micelles with entrapped therapeutic agents. Also described is a method
CC
CC
     for delivering a therapeutic agent in vivo, comprising the administration
     of the micelle. ABB74256 to ABB74858 represent specifically claimed
CC
     nuclear localisation signal (NLS) peptides for use in the method as the
CC
     fusogenic-karyophilic peptides. The micelles produced can have cytostatic
CC
CC
     and antitumour activities. The peptide-lipid-polynucleotide complexes
    produced are useful for inhibiting the progression of neoplastic
CC
    diseases. The invention relates to the field of gene therapy and is
CC
CC
     directed toward methods for producing peptide-lipid-polynucleotide
     complexes suitable for delivery of polynucleotides. The encapsulated
CC
    molecules display therapeutic efficacy in eradicating solid tumours
CC -
     including but not limited to breast carcinoma or prostate carcinoma.
CC
    ABB74235 to ABB74255 are used in the exemplification of the present
CC
CC
     invention
XX
     Sequence 11 AA;
SQ
  Query Match
                          45.5%;
                                  Score 5; DB 5; Length 11;
                          100.0%; Pred. No. 1.2e+02;
  Best Local Similarity
 Matches
             5; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                              0;
            4 GKKKK 8
Qу
              Db
            1 GKKKK 5
RESULT 16
ABB74599
     ABB74599 standard; peptide; 11 AA.
ID
XX
AC
    ABB74599;
XX
```

```
DT
     18-APR-2002 (first entry)
XX
DΕ
     Transcription factor nuclear localisation signal peptide SEQ ID NO:363.
XX
     Fusogenic; nuclear localisation signal; NLS; encapsulation; lipogene;
KW
KW
     liposome; micelle; karyophilic; cytostatic; antitumour; solid tumour;
     peptide-lipid-polynucleotide complex; neoplastic disease; gene therapy;
KW
KW
     breast carcinoma; prostate carcinoma.
XX
OS
     Homo sapiens.
XX
     WO200193836-A2.
PN
XX
PD
     13-DEC-2001.
XX
     08-JUN-2001; 2001WO-US018657.
PF
XX
     09-JUN-2000; 2000US-0210925P.
PR
XX
PA
     (BOUL/) BOULIKAS T.
XX
PI
     Boulikas T;
XX
DR
     WPI; 2002-164295/21.
XX
PT
     Encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with
     nuclear localization signal/fusogenic peptide conjugates into targeted
PT
PT
     liposome complexes.
XX
PS
     Claim 14; Page 76; 107pp; English.
XX
CC
     The present invention describes a method for producing micelles with
CC
     entrapped therapeutic agents. The method comprises: (1) combining
CC
     negatively charged agent with a cationic lipid in a ratio where 30-90 %
CC
     of the negatively charged atoms are neutralised by positive charges on
CC
     lipid molecules to form an electrostatic micelle complex in 20-80 %
CC
     ethanol; and (2) combining the micelle complex of (a) with fusogenic-
CC
     karyophilic peptide conjugates in a 0.0-0.3 ratio, therefore producing
CC
     micelles with entrapped therapeutic agents. Also described is a method
CC
     for delivering a therapeutic agent in vivo, comprising the administration
CC
     of the micelle. ABB74256 to ABB74858 represent specifically claimed
CC
     nuclear localisation signal (NLS) peptides for use in the method as the
CC
     fusogenic-karyophilic peptides. The micelles produced can have cytostatic
CC
     and antitumour activities. The peptide-lipid-polynucleotide complexes
CC
    produced are useful for inhibiting the progression of neoplastic
    diseases. The invention relates to the field of gene therapy and is
CC
CC
     directed toward methods for producing peptide-lipid-polynucleotide
CC
     complexes suitable for delivery of polynucleotides. The encapsulated
CC
     molecules display therapeutic efficacy in eradicating solid tumours
CC
     including but not limited to breast carcinoma or prostate carcinoma.
CC
     ABB74235 to ABB74255 are used in the exemplification of the present
CC
     invention
XX
SQ
     Sequence 11 AA;
  Query Match
                          45.5%; Score 5; DB 5; Length 11;
```

Best Local Similarity 100.0%; Pred. No. 1.2e+02;

```
Matches
             5; Conservative
                                  0; Mismatches
                                                    0;
                                                        Indels
                                                                  0;
                                                                      Gaps
                                                                               0;
Qу
            4 GKKKK 8
              11111
            1 GKKKK 5
Db
RESULT 17
ABU69054
ID
     ABU69054 standard; peptide; 11 AA.
XX
AC
     ABU69054;
XX
DT
     24-JUN-2003 (first entry)
XX
DE
     Intercellular communication antiarrhythmic peptide #1312.
XX
KW
     Antiarrhythmic peptide; non-proliferative disease;
KW
     intercellular communication; CaCl 2 arrhythmia mouse model; arrhythmia;
     gap junctional intracellular communication; GIJC; gap junction;
KW
KW
     metabolic stress; antithrombosis; ulcer; infertility; osteoporosis;
KW
     joint disease; arthritis; vascularisation; cornea; cataract; deafness;
KW
     gastrointestinal motility disorder; heart contractility; psychosis;
KW
     depression; glucose tolerance; non-insulin dependent diabetes mellitus;
KW
     cancer; pancreatitis; inflammation; incontinence; diabetic retinopathy;
KW
     diabetic neuropathy; neuropathic pain; spinal cord injury;
KW
     dental tissue disorder; kidney disease; ischaemia;
KW
     neurodegenerative disease; Parkinson's disease; reactive gliosis;
KW
     glial neoplasm; hormone secretion; tobacco.
XX
os
     Synthetic.
XX
PN
     WO200277017-A2.
XX
PD
     03-OCT-2002.
XX
     22-FEB-2002; 2002WO-US005773.
PF
XX
PR
     22-FEB-2001; 2001US-00792286.
PR
     22-FEB-2001; 2001WO-DK000127.
PR
     23-AUG-2001; 2001US-0314470P.
XX
PA
     (ZEAL-) ZEALAND PHARM AS.
XX
PΙ
     Larsen BD, Petersen JS, Meier E, Kjolbye AL,
                                                       Jorgensen NR;
PI
     Nielsen MS, Holstein-Rathlou N, Martins JB;
XX
DR
     WPI; 2003-229193/22.
XX
PT
     A pharmaceutical composition useful for the treatment of e.g. arrhythmia
PT
     comprises an antiarrhythmic peptides and a carrier.
XX
PS
     Example 51 (synthesis); Page 188; 233pp; English.
XX
CC
     The invention discloses a pharmaceutical composition which comprises
CC
     antiarrhythmic peptide(s) and a carrier with an improved stability. The
CC
     peptides can be used for the prevention or treatment of a non-
```

```
CC
     proliferative disease involving administering a compound that facilitates
CC
     intercellular communication as determined by effect in the CaCl 2
CC
     arrhythmia mouse model. They can also be used for the treatment of
CC
     arrhythmia, diseases associated with impaired gap junctional
CC
     intracellular communication (GIJC) during metabolic stress,
CC
     antithrombosis, wound and lesions in skin or oral mucosa, ulcers,
CC
     infertility, for prevention and/or treatment of slowed conduction in the
CC
     heart, osteoporosis, joint diseases e.g. arthritis, vascularisation of
CC
     the cornea, cataract, deafness associated with impaired GJIC.
CC
     gastrointestinal motility disorders, for improving heart contractility,
CC
     for treating organic psychoses e.g. depression, improving glucose
CC
     tolerance in non-insulin dependent diabetes mellitus patients, for
CC
     treating or preventing spreading of cancer, pancreatitis, glucose and
CC
     oxygen deprivation of cells, tissue or organs (e.g. heart), treating
CC
     inflammation of airway epithelium, disorders of alveolar tissue, urinary
CC
     bladder incontinence, impaired hearing, diabetic retinopathy, diabetic
CC
     neuropathy, neuropathic pain, spinal cord injuries, dental tissue
CC
     disorders, kidney diseases, failures of bone marrow or stem cell
     transplantation, for treating ischaemia, neurodegenerative disease (e.g.
CC
     Parkinson's disease), reactive gliosis, vascular abnormalities in the
CC
CC
     retina, inflammation, treating or preventing the development of glial
     neoplasms, for improving the vascular healing process after balloon
CC
CC
     catheter injury in the carotid, for treating reduced capacity of
CC
     haematopoietic tissue, treating inappropriate hormone secretion from the
CC
     anterior pituitary gland, prevention or treatment of disturbed
CC
     development of teeth, for amelioration of skin aging and cellulite and
CC
     for the treatment of tobacco related disease associated with uncoupling
CC
     of gap junctions. The sequences presented in ABU67743-ABU69079 are the
CC
     modified peptides disclosed in the invention
XX
SO
     Sequence 11 AA;
                          45.5%; Score 5; DB 6; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+02;
             5; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                              0;
                                                                  0; Gaps
            4 GKKKK 8
Qy
              I \mid I \mid I \mid I
            5 GKKKK 9
RESULT 18
ABU69005
     ABU69005 standard; peptide; 11 AA.
ID
XX
AC
     ABU69005;
XX
DT
     24-JUN-2003 (first entry)
XX
DE
     Intercellular communication antiarrhythmic peptide #1263.
XX
KW
     Antiarrhythmic peptide; non-proliferative disease;
KW
     intercellular communication; CaCl 2 arrhythmia mouse model; arrhythmia;
KW
     gap junctional intracellular communication; GIJC; gap junction;
KW
     metabolic stress; antithrombosis; ulcer; infertility; osteoporosis;
KW
     joint disease; arthritis; vascularisation; cornea; cataract; deafness;
KW
     gastrointestinal motility disorder; heart contractility; psychosis;
```

depression; glucose tolerance; non-insulin dependent diabetes mellitus; KW KW cancer; pancreatitis; inflammation; incontinence; diabetic retinopathy; KW diabetic neuropathy; neuropathic pain; spinal cord injury; dental tissue disorder; kidney disease; ischaemia; ΚW ΚW neurodegenerative disease; Parkinson's disease; reactive gliosis; ΚW glial neoplasm; hormone secretion; tobacco. XX OS Synthetic. XX PΝ WO200277017-A2. XX PD 03-OCT-2002. XX PF22-FEB-2002; 2002WO-US005773. XX 22-FEB-2001; 2001US-00792286. PR PR 22-FEB-2001; 2001WO-DK000127. PR 23-AUG-2001; 2001US-0314470P. XX PA (ZEAL-) ZEALAND PHARM AS. XX PΪ Petersen JS, Meier E, Kjolbye AL, Larsen BD, Jorgensen NR; PΙ Nielsen MS, Holstein-Rathlou N, Martins JB; XX DR WPI; 2003-229193/22. XX A pharmaceutical composition useful for the treatment of e.g. arrhythmia PTPTcomprises an antiarrhythmic peptides and a carrier. XX PS Example 9 (experimental); Page 146; 233pp; English. XX CC The invention discloses a pharmaceutical composition which comprises antiarrhythmic peptide(s) and a carrier with an improved stability. The CC CC peptides can be used for the prevention or treatment of a non-CC proliferative disease involving administering a compound that facilitates CC intercellular communication as determined by effect in the CaCl 2 arrhythmia mouse model. They can also be used for the treatment of CC CC arrhythmia, diseases associated with impaired gap junctional CC intracellular communication (GIJC) during metabolic stress, CC antithrombosis, wound and lesions in skin or oral mucosa, ulcers, CC infertility, for prevention and/or treatment of slowed conduction in the CC heart, osteoporosis, joint diseases e.g. arthritis, vascularisation of CC the cornea, cataract, deafness associated with impaired GJIC, CC gastrointestinal motility disorders, for improving heart contractility, CC for treating organic psychoses e.g. depression, improving glucose CCtolerance in non-insulin dependent diabetes mellitus patients, for

treating or preventing spreading of cancer, pancreatitis, glucose and

inflammation of airway epithelium, disorders of alveolar tissue, urinary

transplantation, for treating ischaemia, neurodegenerative disease (e.g.

Parkinson's disease), reactive gliosis, vascular abnormalities in the

retina, inflammation, treating or preventing the development of glial

neoplasms, for improving the vascular healing process after balloon

catheter injury in the carotid, for treating reduced capacity of

bladder incontinence, impaired hearing, diabetic retinopathy, diabetic

oxygen deprivation of cells, tissue or organs (e.g. heart), treating

neuropathy, neuropathic pain, spinal cord injuries, dental tissue

disorders, kidney diseases, failures of bone marrow or stem cell

CC

```
CC
     haematopoietic tissue, treating inappropriate hormone secretion from the
CC
     anterior pituitary gland, prevention or treatment of disturbed
CC
     development of teeth, for amelioration of skin aging and cellulite and
CC
     for the treatment of tobacco related disease associated with uncoupling
CC
     of gap junctions. The sequences presented in ABU67743-ABU69079 are the
CC
     modified peptides disclosed in the invention
XX
SQ
     Sequence 11 AA;
  Query Match
                          45.5%; Score 5; DB 6; Length 11;
                          100.0%; Pred. No. 1.2e+02;
  Best Local Similarity
  Matches
                                0; Mismatches
                                                  0; Indels
            5; Conservative
                                                                     Gaps
                                                                              0;
            4 GKKKK 8
Qу
              5 GKKKK 9
Db
RESULT 19
ABU69004
ID
     ABU69004 standard; peptide; 11 AA.
XX
AC
     ABU69004;
XX
DT
     24-JUN-2003 (first entry)
XX
DΕ
     Intercellular communication antiarrhythmic peptide #1262.
XX
KW
     Antiarrhythmic peptide; non-proliferative disease;
KW
     intercellular communication; CaCl 2 arrhythmia mouse model; arrhythmia;
     gap junctional intracellular communication; GIJC; gap junction;
KW
KW
     metabolic stress; antithrombosis; ulcer; infertility; osteoporosis;
KW
     joint disease; arthritis; vascularisation; cornea; cataract; deafness;
KW
     gastrointestinal motility disorder; heart contractility; psychosis;
     depression; glucose tolerance; non-insulin dependent diabetes mellitus;
KW
KW
     cancer; pancreatitis; inflammation; incontinence; diabetic retinopathy;
KW
     diabetic neuropathy; neuropathic pain; spinal cord injury;
KW
     dental tissue disorder; kidney disease; ischaemia;
KW
     neurodegenerative disease; Parkinson's disease; reactive gliosis;
KW
     glial neoplasm; hormone secretion; tobacco.
XX
OS
     Synthetic.
XX
PN
     WO200277017-A2.
XX
PD
     03-OCT-2002.
XX
PF
     22-FEB-2002; 2002WO-US005773.
XX
PR
     22-FEB-2001; 2001US-00792286.
PR
     22-FEB-2001; 2001WO-DK000127.
PR
     23-AUG-2001; 2001US-0314470P.
XX
PΑ
     (ZEAL-) ZEALAND PHARM AS.
XX
ΡĮ
     Larsen BD,
                 Petersen JS, Meier E, Kjolbye AL,
                                                      Jorgensen NR;
PI
     Nielsen MS, Holstein-Rathlou N, Martins JB;
```

```
XX
DR
     WPI; 2003-229193/22.
XX
PT
     A pharmaceutical composition useful for the treatment of e.g. arrhythmia
PT
     comprises an antiarrhythmic peptides and a carrier.
XX
PS
     Example 9 (experimental); Page 146; 233pp; English.
XX
CC
     The invention discloses a pharmaceutical composition which comprises
CC
     antiarrhythmic peptide(s) and a carrier with an improved stability. The
CC
     peptides can be used for the prevention or treatment of a non-
CC
     proliferative disease involving administering a compound that facilitates
CC
     intercellular communication as determined by effect in the CaCl 2
CC
     arrhythmia mouse model. They can also be used for the treatment of
CC
     arrhythmia, diseases associated with impaired gap junctional
CC
     intracellular communication (GIJC) during metabolic stress,
CC
     antithrombosis, wound and lesions in skin or oral mucosa, ulcers,
CC
     infertility, for prevention and/or treatment of slowed conduction in the
CC
     heart, osteoporosis, joint diseases e.g. arthritis, vascularisation of
     the cornea, cataract, deafness associated with impaired GJIC,
CC
CC
     gastrointestinal motility disorders, for improving heart contractility,
CC
     for treating organic psychoses e.g. depression, improving glucose
CC
     tolerance in non-insulin dependent diabetes mellitus patients, for
CC
     treating or preventing spreading of cancer, pancreatitis, glucose and
CC
     oxygen deprivation of cells, tissue or organs (e.g. heart), treating
CC
     inflammation of airway epithelium, disorders of alveolar tissue, urinary
CC
     bladder incontinence, impaired hearing, diabetic retinopathy, diabetic
CC
     neuropathy, neuropathic pain, spinal cord injuries, dental tissue
CC
     disorders, kidney diseases, failures of bone marrow or stem cell
CC
     transplantation, for treating ischaemia, neurodegenerative disease (e.g.
CC
     Parkinson's disease), reactive gliosis, vascular abnormalities in the
CC
     retina, inflammation, treating or preventing the development of glial
CC
     neoplasms, for improving the vascular healing process after balloon
CC
     catheter injury in the carotid, for treating reduced capacity of
CC
     haematopoietic tissue, treating inappropriate hormone secretion from the
CC
     anterior pituitary gland, prevention or treatment of disturbed
CC
     development of teeth, for amelioration of skin aging and cellulite and
CC
     for the treatment of tobacco related disease associated with uncoupling
CC
     of gap junctions. The sequences presented in ABU67743-ABU69079 are the
CC
     modified peptides disclosed in the invention
XX
SO
     Sequence 11 AA;
                          45.5%; Score 5; DB 6; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+02;
  Best Local Similarity
  Matches
            5; Conservative
                               0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
Qу
            4 GKKKK 8
              Db
            5 GKKKK 9
RESULT 20
ABU69056
ID
     ABU69056 standard; peptide; 11 AA.
XX
AC
    ABU69056;
```

XX DT 24-JUN-2003 (first entry) XX DE Intercellular communication antiarrhythmic peptide #1314. XX KW Antiarrhythmic peptide; non-proliferative disease; KW intercellular communication; CaCl 2 arrhythmia mouse model; arrhythmia; gap junctional intracellular communication; GIJC; gap junction; KW KW metabolic stress; antithrombosis; ulcer; infertility; osteoporosis; joint disease; arthritis; vascularisation; cornea; cataract; deafness; KW KW gastrointestinal motility disorder; heart contractility; psychosis; KW depression; glucose tolerance; non-insulin dependent diabetes mellitus; cancer; pancreatitis; inflammation; incontinence; diabetic retinopathy; KW KW diabetic neuropathy; neuropathic pain; spinal cord injury; KW dental tissue disorder; kidney disease; ischaemia; neurodegenerative disease; Parkinson's disease; reactive gliosis; KW KW glial neoplasm; hormone secretion; tobacco. XX OS Synthetic. XX PNWO200277017-A2. XX PD 03-OCT-2002. XX PF22-FEB-2002; 2002WO-US005773. XX 22-FEB-2001; 2001US-00792286. PR 22-FEB-2001; 2001WO-DK000127. PR 23-AUG-2001; 2001US-0314470P. PR XX PΑ (ZEAL-) ZEALAND PHARM AS. XX PΙ Larsen BD, Petersen JS, Meier E, Kjolbye AL, Jorgensen NR; PΙ Nielsen MS, Holstein-Rathlou N, Martins JB; XX DR WPI; 2003-229193/22. XX PTA pharmaceutical composition useful for the treatment of e.g. arrhythmia PTcomprises an antiarrhythmic peptides and a carrier. XX PS Example 52 (synthesis); Page 189; 233pp; English. XX CC The invention discloses a pharmaceutical composition which comprises CC antiarrhythmic peptide(s) and a carrier with an improved stability. The peptides can be used for the prevention or treatment of a non-CC CC proliferative disease involving administering a compound that facilitates CC intercellular communication as determined by effect in the CaCl 2 CC arrhythmia mouse model. They can also be used for the treatment of arrhythmia, diseases associated with impaired gap junctional CC CC intracellular communication (GIJC) during metabolic stress, CCantithrombosis, wound and lesions in skin or oral mucosa, ulcers, CC infertility, for prevention and/or treatment of slowed conduction in the CC heart, osteoporosis, joint diseases e.g. arthritis, vascularisation of CCthe cornea, cataract, deafness associated with impaired GJIC, CCgastrointestinal motility disorders, for improving heart contractility, CC for treating organic psychoses e.g. depression, improving glucose CC tolerance in non-insulin dependent diabetes mellitus patients, for

```
treating or preventing spreading of cancer, pancreatitis, glucose and
CC
     oxygen deprivation of cells, tissue or organs (e.g. heart), treating
     inflammation of airway epithelium, disorders of alveolar tissue, urinary
CC
     bladder incontinence, impaired hearing, diabetic retinopathy, diabetic
CC
CC
     neuropathy, neuropathic pain, spinal cord injuries, dental tissue
CC
     disorders, kidney diseases, failures of bone marrow or stem cell
CC
     transplantation, for treating ischaemia, neurodegenerative disease (e.g.
CC
     Parkinson's disease), reactive gliosis, vascular abnormalities in the
     retina, inflammation, treating or preventing the development of glial
CC
CC
     neoplasms, for improving the vascular healing process after balloon
CC
     catheter injury in the carotid, for treating reduced capacity of
CC
     haematopoietic tissue, treating inappropriate hormone secretion from the
     anterior pituitary gland, prevention or treatment of disturbed
CC
CC
     development of teeth, for amelioration of skin aging and cellulite and
     for the treatment of tobacco related disease associated with uncoupling
CC
     of gap junctions. The sequences presented in ABU67743-ABU69079 are the
CC
     modified peptides disclosed in the invention
CC
XX
SO
     Sequence 11 AA;
                          45.5%; Score 5; DB 6; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+02;
  Matches
             5; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            4 GKKKK 8
Qу
              5 GKKKK 9
Db
RESULT 21
AAR30180
ID
     AAR30180 standard; protein; 11 AA.
XX
AC
     AAR30180;
XX
DT
     25-MAR-2003
                  (revised)
DT
     05-MAY-1993 (first entry)
XX
DE
     PPI-2:T32 N-terminal sequence.
XX
KW
     Potato papain inhibitor; cystatin; plant; agriculture; transgenic;
KW
     potato; cysteine protease inhibitor.
XX
OS
     Solanum tuberosum.
XX
PN
     WO9221753-A1.
XX
PD
     10-DEC-1992.
XX
PF
     08-JUN-1992;
                    92WO-US004785.
XX
PR
     07-JUN-1991;
                    91US-00712024.
XX
PA
     (DOWC ) DOWELANCO.
XX
     Walsh TA, Owens Merlo PA, Strickland JA, Orr GL, Merlo DJ;
PΙ
PΙ
     Waldron C;
```

```
XX
DR
     WPI; 1992-433651/52.
XX
РΤ
     Mid-gut effective plant nystatin and DNA encoding it - used for
PT
     protecting a plant against insects having digestive cysteine protease(s).
XX
PS
     Disclosure; Fig 3; 96pp; English.
XX
CC
     The sequence shows the N-terminal sequence of a peptide fragment of
CC
     potato papain inhibitor (PPI) obtained by digestion with trypsin. A
CC
     number of fragments were N-terminal sequenced, and extensive homology was
     found, indicating related fragments. These data indicate that PPI
CC
     consists of 8 domains that are all closely related and are members of the
CC
     cystatin family of cysteine protease inhibitors. See also AAR30177-86.
CC
CC
     (Updated on 25-MAR-2003 to correct PN field.)
XX
SO
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
  Matches
             4; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                               0;
            2 EGGK 5
Qу
              1111
Db
            8 EGGK 11
RESULT 22
AAR55163
     AAR55163 standard; protein; 11 AA.
XX
     AAR55163;
AC
XX
DT
     25-MAR-2003
                  (revised)
DT
     11-JAN-1995
                  (first entry)
XX
DΕ
     Fragment of retinoic acid receptor RAR-beta.
XX
KW
     Liver; hap; retinoic acid receptor; steroid; thyroid; hormone; hepatoma;
KW
     retinoid; antibody.
XX
OS
     Homo sapiens.
XX
PN
     US5317090-A.
XX
PD
     31-MAY-1994.
XX
PF
     11-DEC-1992;
                    92US-00989902.
XX
PR
     16-DEC-1987;
                    87US-00133687.
     17-DEC-1987;
                    87US-00134130.
PR
                    88US-00209009.
PR
     20-JUN-1988;
PR
     30-NOV-1988;
                    88US-00278136.
PR
     30-MAR-1989;
                    89US-00330405.
PR
     21-AUG-1991;
                    91US-00751612.
PR
     30-MAR-1992;
                    92US-00860577.
XX
```

```
PΑ
     (INSP ) INST PASTEUR.
XX
PI
    Marchio A, Chambon P, Petkovich M, Krust A, Dejean A, Tiollais P;
PI
     Brand N, De The HB;
XX
DR
    WPI; 1994-176333/21.
XX
    Antibody specific for retinoic acid receptor-beta - useful for detecting,
PT
     quantifying and identifying agonists and antagonists of retinoid
PT
PT
     activity.
XX
PS
     Claim 4; Col 40; 35pp; English.
XX
CC
    The retinoic acid receptor RAR-beta is encoded by a gene designated hap.
CC
    The hap gene is transcribed at low level in most human tissues, but the
     gene is overexpressed in prosate and kidney. Six out of seven hepatoma or
CC
CC
    hepatoma-derived cell lines express a small hap transcript which is
CC
     undetectable in normal adult and foetal livers but present in all non-
    hepatic tissues tested. (Updated on 25-MAR-2003 to correct PF field.)
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
 Matches
            4; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            5 KKKK 8
Qу
              +1111
            5 KKKK 8
Db
RESULT 23
AAR72301
    AAR72301 standard; peptide; 11 AA.
ΙD
XX
AC
    AAR72301;
XX
DT
     25-MAR-2003 (revised)
    20-OCT-1995 (first entry)
DT
XX
DE
    Anti-HIV MBPC.3.
XX
    Multiple branch peptide construction; MBPC; HIV-1;
KW
KW
    human immunodeficiency virus type 1; virucide.
XX
os
     Synthetic.
XX
                     Location/Qualifiers
FH
     Key
FT
     Peptide
                     /note= "peptide is present 168 times, each attached to 1
FT
                     of 8 lysine residues (position 7), in dendritic
FT
                     structure"
FT
FT
    Misc-difference 7
FT
                     /note= "lysine at position 7 is present 8 times, each
                     attached to 1 of 4 other lysine residues (position 8) and
FT
                     also to 1 of 16 peptide moieties (position 1-6) in
FT
FT
                     dendritic structure"
```

```
FT
     Misc-difference 8
                     /note= "lysine at position 8 is present 4 times, each
FT
FT
                     attached to other lysines (positions 7 and 9) in
FT
                     dendritic structure"
FT
     Misc-difference 9
FT
                     /note= "lysine at position 9 is present 2 times, each
                     attached to 1 of 4 other lysine residues (position 8) and
FT
                     to a core lysine residue (position 10), in dendritic
FT
                     structure"
FT
FT
     Modified-site
FT
                     /label= bAla, bAla-NH2
XX
     WO9507929-A1.
PN
XX
PD
     23-MAR-1995.
XX
PF
     13-SEP-1994;
                    94WO-GB001992.
XX
PR
     13-SEP-1993;
                    93GB-00018901.
PR
     15-JUN-1994;
                    94US-00260086.
XX
PΑ
     (ARME-) ARMEL SA.
     (MCKE/) MCKELVEY I E.
PΑ
XX
     Sabatier JM, Benjouad A, Yahi N, Fenouillet E, Mabrouk K;
PI
PI
     Gluckman J, Van Rietschoten J, Rochat H;
XX
DR
     WPI; 1995-131312/17.
XX
PT
     Multiple branch peptide constructions formed from the V3 loop of HIV-1
PT
     gp120 - used to treat HIV infection.
XX
PS
     Disclosure; Page 5; 39pp; English.
XX
CC
     Multiple branch peptide constructions (given in AAR72299-301) are formed
     from the V3 loop of HIV-1 gp120. Each MBPC includes multiple peptide
CC
     moieties incorporating the GPGR consensus sequence, each attached to the
CC
CC
     amino group of a lysine residue, forming a dendritic structure. (Updated
     on 25-MAR-2003 to correct PN field.)
CC
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
                          100.0%; Pred. No. 1.2e+03;
  Best Local Similarity
  Matches
            4; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
Qу
            5 KKKK 8
              7 KKKK 10
Db
RESULT 24
AAR85318
     AAR85318 standard; peptide; 11 AA.
ΙD
XX
AC
    AAR85318;
XX
```

```
DT
     25-MAR-2003
                  (revised)
DT
     19-AUG-1996
                  (first entry)
XX
DΕ
     Human retinoic acid receptor RAR-beta (human liver HAP) peptide-2.
XX
KW
     HAP; liver; hepatoma; retinoic acid receptor; RAR-beta; psoriasis;
     atherosclerosis; rheumatoid arthritis.
KW
XX
OS
     Homo sapiens.
XX
     US5468617-A.
PN
XX
     21-NOV-1995.
PD
XX
PF
     02-FEB-1994;
                    94US-00190555.
XX
PR
     16-DEC-1987;
                    87US-00133687.
PR
     17-DEC-1987;
                    87US-00134130.
PR
     20-JUN-1988;
                    88US-00209009.
PR
     30-NOV-1988;
                    88US-00278136.
PR
     30-MAR-1989;
                    89US-00330405.
PR
     21-AUG-1991;
                    91US-00751612.
PR
     30-MAR-1992;
                    92US-00860577.
PR
     11-DEC-1992;
                    92US-00989902.
PR
     22-JUL-1993;
                    93US-00095706.
XX
     (TIOL/) TIOLLAIS P.
PA
     (DEJE/) DEJEAN A.
PΑ
PΑ
     (KRUS/) KRUST A.
     (PETK/) PETKOVICH M.
PΑ
PΑ
     (DTHE/) BLAUDIN DE THE H.
     (MARC/) MARCHIO A.
PA
PA
     (BRAN/) BRAND N.
PΑ
     (CHAM/) CHAMBON P.
XX
PI
     Brand N, Chambon P, Blaudin De The H, Marchio A, Dejean A;
PΙ
     Petkovich M, Krust A, Tiollais P;
XX
DR
    WPI; 1996-010094/01.
XX
PT
    Method for screening for retinoic acid receptor-beta (ant)agonists -
PT
     useful for blood testing and for treatment of rheumatoid arthritis,
PT
    psoriasis, atherosclerosis etc.
XX
PS
     Claim 7; Col 39-40; 35pp; English.
XX
CC
    This RAR-beta peptide-2 fragment is part of a protein which may be
CC
     expressed recombinantly in bacterial host cells such as Escherichia coli
     TG-1. The protein, which is free from human, blood-derived protein, forms
CC
CC
     a complex with an agonist or antagonist. The protein may be used in a
CC
     novel method for assaying a fluid for the presence of an agonist or
CC
     antagonist to retinoic acid receptor, RAR-beta. (Updated on 25-MAR-2003
CC
     to correct PF field.)
XX
SQ
     Sequence 11 AA;
 Query Match
                          36.4%; Score 4; DB 2; Length 11;
```

```
Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
                                                                  0; Gaps
  Matches
             4; Conservative
                                 0; Mismatches 0; Indels
                                                                              0;
            5 KKKK 8
Qy
              \Pi\Pi
Db
            5 KKKK 8
RESULT 25
AAW24438
     AAW24438 standard; peptide; 11 AA.
XX
AC
     AAW24438;
XX
DT
     30-SEP-1997 (first entry)
XX
DE
     Nucleic acid (NA) binding peptide used in NA delivery to cells.
XX
KW
     Nucleic acid transporter; gene therapy; binding complex; lysis agent;
     JTS-1; K8; alpha helix; endosome; lysosome; nucleus targeting.
ΚW
XX
OS
     Synthetic.
XX
PN
     WO9640958-A1.
XX
     19-DEC-1996.
PD
XX
PF
     23-APR-1996;
                    96WO-US005679.
XX
     07-JUN-1995;
                    95US-00484777.
PR
XX
PA
     (BAYU ) BAYLOR COLLEGE MEDICINE.
XX
PΙ
     Smith LC, Sparrow JT, Woo SL;
XX
     WPI; 1997-052345/05.
DR
XX
PT
     Nucleic acid transporter useful in gene therapy - contains binding
     complex associated with surface and nuclear ligands and lysis agent.
PT
XX
PS
     Disclosure; Page 49; 125pp; English.
XX
CC
     AAW24434-W24459 are nucleic acid (NA) binding peptides, capable of both
CC
     condensing and stabilising a NA. The peptides can be conjugated to a
CC
     lytic peptide to form a nucleic acid transporter system. The lysis agent
     forms an alpha-helical structure. The transporter system is used to
CC
     deliver nucleic acid to a cell and for treating humans by gene therapy.
CC
CC
     By taking advantage of the characteristics of both the lysis agents and
CC
     the binding molecules, delivery of the nucleic acid is enhanced. Specific
CC
     lysis agents are capable of releasing the nucleic acid into the cellular
CC
     interior from the endosome. Release is efficient without
CC
     endosomal/lysosomal degradation. Once released the binding complexes help
CC
     target the nucleic acid to the nucleus
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
```

```
Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
             4; Conservative
  Matches
                                 0; Mismatches
                                                   0;
                                                        Indels
                                                                              0;
                                                                  0;
                                                                      Gaps
            5 KKKK 8
Qу
              1111
Db
            4 KKKK 7
RESULT 26
AAW38865
     AAW38865 standard; peptide; 11 AA.
XX
AC
     AAW38865:
XX
DT
     30-MAR-1998
                  (first entry)
XX
DE
     Delivery peptide used in peptide macromolecule complex.
XX
KW
     Delivery peptide; peptide-macromolecule complex; macromolecule delivery;
ΚW
     non-exchangeable lipophilic peptide; disease therapy; cell targeting.
XX
os
     Synthetic.
XX
PN
     W09725070-A2.
XX
     17-JUL-1997.
PD
XX
                    97WO-US000454.
PF
     02-JAN-1997;
XX
PR
     08-JAN-1996;
                    96US-00584043.
XX
     (BAYU ) BAYLOR COLLEGE MEDICINE.
PΑ
XX
ΡI
     Smith LC, Sparrow JT, Hauer J, Mims MP;
XX
DR
     WPI; 1997-372622/34.
XX
     New lipophilic peptide-macromolecule complexes - used for the delivery of
PT
PT
     macromolecules to cells, particularly for gene therapy.
XX
PS
     Disclosure; Page 51; 106pp; English.
XX
     This sequence represents a delivery peptide that can be used in the
CC
CC
     peptide-macromolecule complex of the invention. The peptide-macromolecule
CC
     complex of the invention is for delivering a macromolecule into a cell,
     and comprises a non-exchangeable lipophilic peptide (LP) comprising a
CC
CC
     delivery peptide associated with a lipid moiety, where the delivery
CC
     peptide portion of the LP is complexed to the macromolecule. The
CC
     complexes can be used for the delivery of macromolecules such as nucleic
CC
     acids, proteins, oligonucleotides, lipids or carbohydrates. They can be
CC
     used to treat diseases by enhancing delivery of specific nucleic acid to
CC
     the appropriate targeted cells. They can also be used to create
CC
     transformed cells as well as transgenic animals for assessing human
     disease in an animal model. They can also be used for livestock
CC
CC
     agricultural purposes. The complex is capable of transporting the
CC
     macromolecule in a stable and condensed state and releasing the molecule
CC
     into the cellular interior. The complex can bind with a cell surface
```

```
CC
     receptor, lyse an endosome and target the nucleus of the cell
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
                              0; Mismatches
                                                                             0;
 Matches
            4; Conservative
                                                   0; Indels
                                                                 0; Gaps
            5 KKKK 8
Qу
              Db
            1 KKKK 4
RESULT 27
AAW38785
    AAW38785 standard; peptide; 11 AA.
XX
AC
    AAW38785;
XX
     30-MAR-1998 (first entry)
DT
XX
DE
     Delivery peptide used in peptide macromolecule complex.
XX
KW
     Delivery peptide; peptide-macromolecule complex; macromolecule delivery;
KW
    non-exchangeable lipophilic peptide; disease therapy; cell targeting.
XX
OS
     Synthetic.
XX
    WO9725070-A2.
ΡN
XX
    17-JUL-1997.
PD
XX
PF
     02-JAN-1997;
                    97WO-US000454.
XX
PR
    08-JAN-1996;
                    96US-00584043.
XX
PA
     (BAYU ) BAYLOR COLLEGE MEDICINE.
XX
PΙ
     Smith LC, Sparrow JT, Hauer J,
                                     Mims MP;
XX
DR
    WPI; 1997-372622/34.
XX
PΤ
    New lipophilic peptide-macromolecule complexes - used for the delivery of
PT
    macromolecules to cells, particularly for gene therapy.
XX
PS
     Claim 6; Page 83; 106pp; English.
XX
CC
     This sequence represents a delivery peptide that can be used in the
CC
    peptide-macromolecule complex of the invention. The peptide-macromolecule
CC
     complex of the invention is for delivering a macromolecule into a cell,
CC
     and comprises a non-exchangeable lipophilic peptide (LP) comprising a
CC
     delivery peptide associated with a lipid moiety, where the delivery
CC
     peptide portion of the LP is complexed to the macromolecule. The
CC
     complexes can be used for the delivery of macromolecules such as nucleic
     acids, proteins, oligonucleotides, lipids or carbohydrates. They can be
CC
CC
     used to treat diseases by enhancing delivery of specific nucleic acid to
     the appropriate targeted cells. They can also be used to create
CC
```

```
transformed cells as well as transgenic animals for assessing human
CC
     disease in an animal model. They can also be used for livestock
CC
     agricultural purposes. The complex is capable of transporting the
CC
CC
     macromolecule in a stable and condensed state and releasing the molecule
CC
     into the cellular interior. The complex can bind with a cell surface
     receptor, lyse an endosome and target the nucleus of the cell
CC
XX
SO
     Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+03;
  Best Local Similarity
  Matches
             4: Conservative
                                0; Mismatches
                                                   0: Indels
                                                                  0; Gaps
                                                                              0;
Qу
            5 KKKK 8
              1111
Db
            1 KKKK 4
RESULT 28
AAW38822
    AAW38822 standard; peptide; 11 AA.
ΙD
XX
AC
     AAW38822;
XX
DT
     30-MAR-1998 (first entry)
XX
DΕ
     Delivery peptide used in peptide macromolecule complex.
XX
KW
     Delivery peptide; peptide-macromolecule complex; macromolecule delivery;
     non-exchangeable lipophilic peptide; disease therapy; cell targeting.
KW
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
FT
     Misc-difference 10
                     /note= "any amino acid"
FT
XX
     WO9725070-A2.
ΡN
XX
PD
     17-JUL-1997.
XX
PF
     02-JAN-1997;
                    97WO-US000454.
XX
PR
     08-JAN-1996;
                    96US-00584043.
XX
     (BAYU ) BAYLOR COLLEGE MEDICINE.
PA
XX
PI
     Smith LC, Sparrow JT, Hauer J, Mims MP;
XX
DR
     WPI; 1997-372622/34.
XX
PT
     New lipophilic peptide-macromolecule complexes - used for the delivery of
PT
     macromolecules to cells, particularly for gene therapy.
XX
     Claim 6; Page 63; 106pp; English.
PS
XX
CC
     This sequence represents a delivery peptide that can be used in the
```

```
CC
     peptide-macromolecule complex of the invention. The peptide-macromolecule
CC
     complex of the invention is for delivering a macromolecule into a cell,
CC
     and comprises a non-exchangeable lipophilic peptide (LP) comprising a
CC
     delivery peptide associated with a lipid moiety, where the delivery
     peptide portion of the LP is complexed to the macromolecule. The
CC
CC
     complexes can be used for the delivery of macromolecules such as nucleic
CC
     acids, proteins, oligonucleotides, lipids or carbohydrates. They can be
CC
     used to treat diseases by enhancing delivery of specific nucleic acid to
     the appropriate targeted cells. They can also be used to create
CC
CC
     transformed cells as well as transgenic animals for assessing human
     disease in an animal model. They can also be used for livestock
CC
     agricultural purposes. The complex is capable of transporting the
CC
CC
     macromolecule in a stable and condensed state and releasing the molecule
CC
     into the cellular interior. The complex can bind with a cell surface
CC
     receptor, lyse an endosome and target the nucleus of the cell
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
             4; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            5 KKKK 8
Qу
              +111
Db
            1 KKKK 4
RESULT 29
AAW26074
ID
     AAW26074 standard; peptide; 11 AA.
XX
AC
     AAW26074;
XX
DT
     28-OCT-1997
                  (first entry)
XX
DE
     M32 derivative of tenecin peptide fragment TED.
XX
KW
     Tenecin; antibiotic; antifungal peptide; Tenebrio molitor; chemotherapy;
KW
     systemic infection; pathogen.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Modified-site
FT
                     /note= "amidated"
XX
     WO9702286-A1.
PN
XX
PD
     23-JAN-1997.
XX
PF
     11-MAR-1996;
                    96WO-KR000034.
XX
PR
     06-JUL-1995;
                    95KR-00019694.
PR
     29-JAN-1996;
                    96KR-00001909.
PR
     29-JAN-1996;
                    96KR-00001910.
PR
     29-JAN-1996;
                    96KR-00001911.
XX
```

```
PΑ
     (MOGA-) MOGAM BIOTECHNOLOGY RES INST.
XX
PI
     Lee K, Hong S, Cho H, Lee B, Chung K, Yoon J, Oh J, Moon H;
XX
DR
     WPI; 1997-108913/10.
XX
PT
     Acid- or amide-form peptide(s) with antibacterial and antifungal activity
PT
     - used for chemotherapy of local and systemic infections caused by
PT
     pathogenic bacteria.
XX
PS
     Example 4; Page 17; 30pp; English.
XX
CC
     AAW26002-W26077 represent derivatives of the antibiotic fragments of
     tenecin (see AAW26000) shown in AAW01830-W10835. AAW01830-W01835 are
CC
CC
     amidated derivatives of antibiotic fragments of the wild type tenecin
CC
     sequence. These sequences are used as the antibacterial and antifungal
CC
     peptides of the invention. Tenecin is an antibacterial peptide isolated
CC
     from Tenebrio molitor larvae. Tenecin does have some drawbacks which
     prevent it from practical use. Tenecin has a narrow spectrum of target
CC
CC
     cells, and due to its large molecular size may provoke antigen-antibody
CC
     reactions in vivo, and is also unstable. The peptides can be used for the
CC
     development of antibacterial and antifungal agents for the chemotherapy
CC
     of local and systemic infections caused by pathogenic bacteria and/or
CC
     fungi and can be formulated into potent antibacterial and/or fungal
CC
     agents. The peptides have superior antibacterial and/or antifungal
CC
     activity, while causing no cytotoxicity. They do not give rise to lysing
CC
     of red blood cells. These peptides also have improved stability over the
CC
     wild type tenecin
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
             4; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            5 KKKK 8
QУ
              IIII
Db
            1 KKKK 4
RESULT 30
AAW16616
    AAW16616 standard; peptide; 11 AA.
XX
AC
    AAW16616;
XX
DT
     19-DEC-1997 (first entry)
XX
DE
     Phosphoinositide-3 kinase pl10alpha conserved motif.
XX
KW
     Phosphoinositide 3 kinase; PI-3 kinase; wortmannin.
XX
OS
     Synthetic.
XX
PN
     WO9715658-A1.
XX
PD
     01-MAY-1997.
```

```
XX
PF
     28-OCT-1996;
                    96WO-GB002614.
XX
PR
     26-OCT-1995;
                    95GB-00021987.
XX
PΑ
     (LUDW-) LUDWIG INST CANCER RES.
XX
PΙ
     Wymann MP, Bulgarelli-Vela G, Panayotou G, Vanhaesebroeck B;
PΙ
     Zvelebil MJ, Waterfield MD;
XX
DR
     WPI; 1997-259013/23.
XX
PT
     Phospho:inositide 3 kinase wortmannin interaction site - to identify and
PT
     design ligands which regulate phospho:inositide 3 kinase activity.
XX
PS
     Disclosure; Page 32; 71pp; English.
XX
CC
     A novel interaction site has been discovered on phosphoinositide 3 (PI-3)
CC
     kinase, or a homologue or analogue. The interaction site modulates the
CC
     activity of PI-3 kinase when exposed to a modulator, and has a molecular
CC
     shape adapted to interact with at least a part of the modulator so as to
CC
     modulate PI-3 kinase activity. The present sequence represents a
CC
     conserved motif (resembling K(X) nKXKK where n=3-7) in PI-3 kinase
     pl10alpha, that was found to bind phosphatidylinositol in gelsolin and so
CC
CC
     might constitute a binding site for the 4,5-phosphates of the lipid. The
CC
     activity of PI-3 kinase can be regulated by altering, e.g. substituting a
CC
     different amino acid or deleting any of the features of the site. The
CC
     site may be used to identify or design novel ligands which regulate the
CC
     activity of PI-3 kinase by generating a molecular model of the wortmannin
CC
     inhibition site of PI-3 kinase, identifying or designing ligands which
     interact with at least part of the site and optionally contacting the
CC
CC .
     putative ligand with PI-3 kinase and monitoring PI-3 kinase activity
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
                          100.0%; Pred. No. 1.2e+03;
  Best Local Similarity
  Matches
             4; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            5 KKKK 8
Qу
              1 KKKK 4
Db
RESULT 31
AAW86735
    AAW86735 standard; peptide; 11 AA.
ID
XX
AC
     AAW86735;
XX
DT
     26-MAR-1999 (first entry)
XX
DE
     Anticoagulant peptide component.
XX
KW
     Anticoagulant; blood coagulation inhibitor; disulphide bond; catheter;
KW
     blood bag; dialysis membrane; artificial blood vessel.
XX
```

```
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Cross-links
FT
                     /note= "This residue is disulphide-bonded to Cys(7) of
FT
                     the peptide KKHICICKK (see AAW86734)"
FT
     Cross-links
FT
                     /note= "This residue is disulphide-bonded to Cys(5) of
FT
                     the peptide KKHICICKK (see AAW86734)"
XX
PN
     JP11001493-A.
XX.
PD
     06-JAN-1999.
XX
     12-JUN-1997;
                    97JP-00172827.
PF
XX
PR
     12-JUN-1997;
                    97JP-00172827.
XX
PA
     (KURS ) KURARAY CO LTD.
XX
DR
     WPI; 1999-125476/11.
XX
PT
     New peptide which inhibits blood coagulation - useful in a pharmaceutical
     material used as a catheter, blood vessel and blood dialysis membrane.
PT
XX
PS
     Disclosure; Page 5; 18pp; Japanese.
XX
CC
     New inter- or intra-disulphide bonded peptides are disclosed which have
     the formula A-X-Cys(1)-Y-Cys(2)-Z-B A'-X'-Cys(3)-Y'-Cys(4)-Z'-B' in
CC
CC
     which: Cys(1) is disulphide-bonded to Cys(4); Cys(2) is disulphide-
CC
     bonded to Cys(3); A = H or forms a single bond together with B'; B = OH
     or amino or forms a single bond together with A'; A' = H or forms a
CC
CC
     single bond together with B; B' = OH or amino or forms a single bond
CC
     together with A; X and X' = peptide fragments composed of 3 to 13 amino
     acid residues; Y and Y' = neutral or basic amino acid residues; and Z and
CC
CC
     Z' = peptide fragments composed of 2 to 12 amino acid residues. These
CC
     peptides inhibit blood coagulation. They can be immobilised on the blood-
     contacting surfaces of catheters, blood circuits, blood bags, blood
CC
CC
     dialysis membranes, artificial blood vessels, etc. The present sequence
CC
     represents a specific example of the new peptides
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
 Matches
            4; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            5 KKKK 8
Qу
              \pm 1111
Db
            8 KKKK 11
RESULT 32
AAW77457
ID
    AAW77457 standard; peptide; 11 AA.
XX
AC
    AAW77457;
```

```
XX
DT
     24-MAY-1999
                  (first entry)
XX
DΕ
     Lipophilic binding peptide.
XX
KW
     Lipophilic; binding; complex; gene therapy; cell targetting.
XX
os
     Synthetic.
XX
PN
     WO9850078-A1.
XX
ΡD
     12-NOV-1998.
XX
PF
     30-APR-1998;
                    98WO-US008849.
XX
PR
     02-MAY-1997;
                    97US-0045295P.
XX
PΑ
     (GENE-) GENEMEDICINE INC.
PΑ
     (BAYU ) BAYLOR COLLEGE MEDICINE.
XX
PΙ
     Wadwha MS, Rolland A, Smith LC, Logan M, Sparrow JT;
XX
DR
     WPI; 1999-034689/03.
XX
PT
     New complex of macromolecule with lipophilic lytic and binding proteins -
     used particularly for targetted delivery of nucleic acid to cells and
PT
PT
     especially for gene therapy.
XX
PS
     Claim 9, 12; Page 81, 82; 98pp; English.
XX
CC
     The invention relates to new complexes for delivering a macromolecule to
CC
     cells in an organism. The complex comprises the macromolecule together
CC
     with either or both of a lipophilic lytic peptide and a lipophilic
CC
     binding peptide, both of these peptides including one or more hydrophobic
CC
     moieties. The present sequence is a preferred example of a lipophilic
CC
     binding peptide which can be used in the complex. The hydrophobic moiety
CC
     is preferably one or more palmitoyl or palmityl groups attached to the
CC
     amino groups of Lys residues in the peptide. The new complexes are
CC
     particularly used to deliver nucleic acids to specific tissues or cell
CC
     types. Alternatively the macromolecule may be a protein, peptide, lipid,
CC
     carbohydrate or peptidomimetic. Typical applications are gene therapy of
CC
     muscular dystrophy, ageing, osteoporosis, arthritis and lung cancer; as
CC
     vaccines; and for stimulating repair and regeneration of joints. The
CC
     peptides stabilise and condense the macromolecule. The binding peptide
     allows targeting to selected cells, while the lytic peptide lyses
CC
CC
     endosomes and so improves delivery of the macromolecule by preventing
CC
     degradation by lysosomes. The complex is effectively transported through
CC
     the cytoplasm to the nucleus
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%;
                                  Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
             4; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
```

5 KKKK 8

 $\mathbf{H}$ 

Qу

```
RESULT 33
AAY88559
ID
     AAY88559 standard; peptide; 11 AA.
XX
AC
    AAY88559;
XX
DT
     07-AUG-2000 (first entry)
XX
DE
    NCAM Iq1 binding peptide 114 used as a control peptide.
XX
KW
    NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
    neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
XX
OS
     Synthetic.
XX
PN
    WO200018801-A2.
XX
    06-APR-2000.
PD
XX
PF
    23-SEP-1999;
                    99WO-DK000500.
XX
     29-SEP-1998;
                    98DK-00001232.
PR
PR
     29-APR-1999;
                    99DK-00000592.
XX
     (RONN/) RONN L C B.
PA
PA
     (BOCK/) BOCK E.
PA
     (HOLM/) HOLM A.
     (OLSE/) OLSEN M.
PA
PΑ
     (OSTE/) OSTERGAARD S.
     (JENS/) JENSEN P H.
PΑ
     (POUL/) POULSEN F M.
PA
PΑ
     (SORO/) SOROKA V.
PA
     (RALE/) RALETS I.
PA
     (BERE/) BEREZIN V.
XX
PI
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH;
PI
     Poulsen FM, Soroka V, Ralets I, Berezin V;
XX
    WPI; 2000-293111/25.
DR
XX
PT
     Compositions that bind neural cell adhesion molecules useful for treating
PT
     disorders of the nervous system and muscles e.g. Alzheimer's and
PT
     Parkinson's diseases.
XX
PS
     Example 5; Fig 7; 119pp; English.
XX
CC
    Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule.
CC
    NCAM is found in three forms, two of which are transmembrane forms, while
CC
     the third is attached via a lipid anchor to the cell membrane. All three
     NCAM forms have an extracellular structure consisting five immunoglobulin
CC
CC
     domains (Iq domains). The Iq domains are numbered 1 to 5 from the N-
```

```
CC
     terminal. The invention relates to a compound containing a peptide which
CC
     binds to the NCAM Ig1 domain. The compound binds to NCAM-Ig1/Ig2 domains,
CC
     and is capable of stimulating or promoting neurite outgrowth from NCAM
CC
     presenting cells, and is also capable of promoting the proliferation of
CC
     NCAM presenting cells. The present sequence represents a control peptide
CC
     used in the identification of those binding peptides which can be used in
CC
     the compound. The compound may be used in the treatment of normal,
CC
     degenerated or damaged NCAM presenting cells. The compound may in
CC
     particular be used to treat diseases of the central and peripheral
CC
     nervous systems such as post operative nerve damage, traumatic nerve
CC
     damage, impaired myelination of nerve fibres, conditions resulting from a
     stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis,
CC
CC
     nerve degeneration associated with diabetes mellitus, disorders affecting
CC
     the circadian clock or neuro-muscular transmission and schizophrenia.
CC
     Conditions affecting the muscles may also be treated with the compound,
CC
     such as conditions associated with impaired function of neuromuscular
CC
     connections (e.g. genetic or traumatic shock or traumatic atrophic muscle
CC
     disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus
CC
     types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also
     be treated using the compound. The compound is used in a prosthetic nerve
CC
CC
     guide, and also to stimulate the ability to learn, and to stimulate the
CC
     memory of a subject
XX
SQ.
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 3; Length 11;
                          100.0%; Pred. No. 1.2e+03;
  Best Local Similarity
                                0; Mismatches
 Matches
            4; Conservative
                                                  0; Indels
                                                                 0; Gaps
                                                                              0;
            5 KKKK 8
Qу
              +1+1
            7 KKKK 10
Db
RESULT 34
AAY88558
     AAY88558 standard; peptide; 11 AA.
XX
AC
     AAY88558;
XX
     07-AUG-2000
                 (first entry)
DT
XX
DE
     NCAM Ig1 binding peptide 121 used as a control peptide.
XX
    NCAM; neural cell adhesion molecule; Igl; immunoglobulin domain 1;
KW
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
    Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
XX
OS
     Synthetic.
XX
PN
    WO200018801-A2.
XX
PD
     06-APR-2000.
XX
PF
     23-SEP-1999;
                    99WO-DK000500.
```

```
XX
PR
     29-SEP-1998;
                    98DK-00001232.
PR
     29-APR-1999;
                    99DK-00000592.
XX
     (RONN/) RONN L C B.
PΑ
     (BOCK/) BOCK E.
PΑ
     (HOLM/) HOLM A.
PΑ
PΑ
     (OLSE/) OLSEN M.
     (OSTE/) OSTERGAARD S.
PA
     (JENS/) JENSEN P H.
PΑ
     (POUL/) POULSEN F M.
PA
     (SORO/) SOROKA V.
PA
PΑ
     (RALE/) RALETS I.
PΑ
     (BERE/) BEREZIN V.
XX
PΙ
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH;
PΙ
     Poulsen FM, Soroka V, Ralets I, Berezin V;
XX
DR
     WPI; 2000-293111/25.
XX
РΤ
     Compositions that bind neural cell adhesion molecules useful for treating
PT
     disorders of the nervous system and muscles e.g. Alzheimer's and
     Parkinson's diseases.
PT
XX
PS
     Example 5; Fig 7; 119pp; English.
XX
CC
     Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule.
     NCAM is found in three forms, two of which are transmembrane forms, while
CC
     the third is attached via a lipid anchor to the cell membrane. All three
CC
     NCAM forms have an extracellular structure consisting five immunoglobulin
CC
     domains (Ig domains). The Ig domains are numbered 1 to 5 from the N-
CC
     terminal. The invention relates to a compound containing a peptide which
CC
CC
     binds to the NCAM Iq1 domain. The compound binds to NCAM-Iq1/Iq2 domains,
CC
     and is capable of stimulating or promoting neurite outgrowth from NCAM
CC
     presenting cells, and is also capable of promoting the proliferation of
     NCAM presenting cells. The present sequence represents a control peptide
CC
     used in the identification of those binding peptides which can be used in
CC
CC
     the compound. The compound may be used in the treatment of normal,
CC
     degenerated or damaged NCAM presenting cells. The compound may in
CC
     particular be used to treat diseases of the central and peripheral
CC
     nervous systems such as post operative nerve damage, traumatic nerve
CC
     damage, impaired myelination of nerve fibres, conditions resulting from a
CC
     stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis,
CC
     nerve degeneration associated with diabetes mellitus, disorders affecting
CC
     the circadian clock or neuro-muscular transmission and schizophrenia.
CC
     Conditions affecting the muscles may also be treated with the compound,
CC
     such as conditions associated with impaired function of neuromuscular
CC
     connections (e.g. genetic or traumatic shock or traumatic atrophic muscle
CC
     disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus
CC
     types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also
CC
     be treated using the compound. The compound is used in a prosthetic nerve
CC
     guide, and also to stimulate the ability to learn, and to stimulate the
CC
     memory of a subject
XX
SQ
     Sequence 11 AA;
```

```
Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
             4; Conservative
                                 0; Mismatches
                                                        Indels
                                                                      Gaps
                                                                               0;
            5 KKKK 8
Qу
              \Pi\Pi\Pi
Db
            2 KKKK 5
RESULT 35
AAY79943
     AAY79943 standard; peptide; 11 AA.
XX
AC
     AAY79943;
XX
DT
     11-MAY-2000
                 (first entry)
XX
DE
     Beta-amyloid hybrid peptide SEQ ID NO:8.
XX
KW
     Beta-amyloid; inhibitor; recognition element; hybrid; aggregation;
KW
     Alzheimer's disease; neuroprotective; nootropic.
XX
OS
     Homo sapiens.
OS
     Synthetic.
XX
PN
     US6022859-A.
XX
PD
     08-FEB-2000.
XX
PF
     14-NOV-1997;
                    97US-00970833.
XX
PR
     15-NOV-1996;
                    96US-0030840P.
XX
     (WISC ) WISCONSIN ALUMNI RES FOUND.
PA
XX
PΙ
     Murphy RM,
                 Kiessling LL;
XX
     WPI; 2000-160387/14.
DR
XX
PT
     Beta-amyloid inhibitor useful for treating Alzheimer's disease.
XX
PS
     Example; Col 7; 15pp; English.
XX
CC
     The present invention describes a beta-amyloid inhibitor peptide. Beta-
CC
     amyloid inhibitors have neuroprotective and nootropic properties. The
CC
     inhibitor peptides are useful for the treatment of Alzheimer's disease.
CC
     The present sequence represents a beta-amyloid hybrid peptide used in the
CC
     exemplification of present invention
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
  Matches
             4; Conservative
                              0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            5 KKKK 8
Qу
              1111
            6 KKKK 9
Db
```

RESULT 36 AAY90160 AAY90160 standard; peptide; 11 AA. ID XX AC AAY90160; XX DT06-AUG-2003 (revised) DT21-SEP-2000 (first entry) XX DE UPAR targeting sequence with spacers #10. XX KW Ligand epitope; UPAR; urokinase-type plasminogen activator receptor; KW adenovirus; hexon HVR5 loop; hexon HI loop; peripheral artery disease; KW recombinant adenovirus vector; tumour; restenosis; gene therapy; asthma; KW smooth muscle cell proliferation inhibitor; coronary artery disease; KW obesity; neurodegenerative disease; infection; autoimmune disease; HIV; KW thrombosis; diabetes; tropism-modified virus. XX OS Synthetic. XX WO200012738-A1. PNXX 09-MAR-2000. PD XX PF27-AUG-1999; 99WO-IB001524. XX PR 27-AUG-1998; 98US-0098028P. XX PA (AVET ) AVENTIS PHARMA SA. XX PΙ Dedieu J, Latta M, Yeh P, Perricaudet M; XX WPI; 2000-256653/22. DR XX PTUrokinase-type plasminogen activator receptor (UPAR)-targeted adenovirus vectors having modified hexon HRV5 and HI loops and modified fiber PTproteins useful for targeted gene therapy to treat cancer or restenosis. PTXX PS Claim 15; Page 69; 128pp; English. XX CC This sequence represents a targeting sequence for UPAR, and is flanked by linkers. The invention relates to an adenovirus from which at least a CC CCpart of the hexon HVR5 or HI loop is replaced with a binding peptide, or CC targeting sequence, flanked by connecting amino acid spacers, to CC functionally display its binding specificity at the capsid surface. The CC invention also relates to a recombinant adenovirus vector where a binding

peptide, or targeting sequence, is connected to the C-terminus of the

recombinant adenovirus vector can be used to preferentially express a gene in a target cell, especially a cell that expresses a UPAR. The

encoding a gene for treatment of a tumour or restenosis. The targeted

adenovirus vector is useful for gene therapy treatment of a disease, and

for manufacturing a medicine used in gene therapy treatment of a disease.

targeted adenovirus vector preferably comprises a heterologous gene

its binding specificity at the capsid surface. The adenovirus or

fiber by a connecting spacer, or linker, so as to functionally display

CC

CC

CC

CC

CC

CC

CC

```
The viruses can also be used to inhibit smooth muscle cell proliferation,
CC
     to treat peripheral artery diseases, coronary artery diseases, obesity,
CC
     neurodegenerative diseases, infections, autoimmune diseases, asthma, HIV,
CC
     thrombosis, and diabetes. The viruses are particularly targeted against a
     urokinase-type plasminogen activator receptor (UPAR). The adenoviruses
CC
CC
     are tropism-modified without adversely impacting productivity of the
     vectors. (Updated on 06-AUG-2003 to correct OS field.)
CC
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
                              0; Mismatches
                                                                  0; Gaps
             4; Conservative
                                                   0; Indels
                                                                              0;
            5 KKKK 8
Qу
              +111
Db
            3 KKKK 6
RESULT 37
AAY95530
     AAY95530 standard; peptide; 11 AA.
XX
AC
    AAY95530;
XX
DT
     10-OCT-2000 (first entry)
XX
DE
     Transactivator of transcription (Tat) peptide R52.
XX
KW
     Transactivator of transcription; Tat; HIV; AIDS; Karposi's sarcoma;
     antiviral; virucide; screening; retrovirus; antiretrovirus;
KW
ΚW
     acetamidino saccharide; quanidino saccharide; aminoglycoside; antibiotic;
KW
     peptidomimetic.
XX
OS
     Human immunodeficiency virus.
OS
     Synthetic.
XX
PN
     WO200039139-A1.
XX
     06-JUL-2000.
PD
XX
     28-DEC-1999;
                    99WO-IL000704.
PF
XX
PR
     28-DEC-1998;
                    98IL-00127773.
XX
PA
     (YEDA ) YEDA RES & DEV CO LTD.
XX
PΙ
     Lapidot A, Litovchick A, Evdokimov A;
XX
DR
     WPI; 2000-465729/40.
XX
PT
     Novel peptidomimetic conjugates of saccharides such as aminoglycoside
PT
     antibiotics with acetamidino and guanidino compounds useful for treating
     HIV-infections, AIDS and AIDS manifestations such as Kaposi's sarcoma.
PТ
XX
PS
     Example 10; Page 27; 87pp; English.
XX
```

```
The present sequence is that of the model Tat (transactivator of
     transcription) peptide R52. Interaction of the HIV Tat with the
CC
     transactivation responsive RNA (TAR) region of the HIV long terminal
CC
     repeat regulates viral gene expression, and is an attractive target for
CC
CC
     drug design strategies. The invention is based on the discovery that by
     combining a carbohydrate skeleton, either a mono- or an oligosaccharide
CC
CC
     similar to aminoglycoside antibiotics, with side-chains of variable
     length bearing a guanidine moiety or a chemical group with a similar
CC
     geometry and/or charge properties resembling peptide side chains, a new
CC
     class of peptidomimetic TAR RNA binders is obtained that are anti-HIV
CC
     compounds and suppress viral replication by inhibiting transactivation by
CC
     Tat as well as by blocking viral entry to cells through chemokine
CC
     receptor dependent mechanism. The present Tat peptide and a 31-nucleotide
CC
     TAR RNA fragment (see AAA49983) were used in assays to screen for such
CC
     compounds, which will be useful as antiviral, particularly
CC
     antiretroviral, agents for treatment of HIV infection, AIDS and
CC
CC
     manifestations of AIDS, such as Karposi's sarcoma
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+03;
  Best Local Similarity
                                                                              0;
                                                   0; Indels
                                                                 0;
            4; Conservative
                              0; Mismatches
                                                                     Gaps
  Matches
            5 KKKK 8
Qy
              ++++
            6 KKKK 9
Db
RESULT 38
AAB29168
     AAB29168 standard; peptide; 11 AA.
XX
AC
     AAB29168;
XX
     02-FEB-2001 (first entry)
DT
XX
DΕ
     Peptide #12.
XX
     Fork head associated; FHA; domain; transcriptional control;
KW
KW
     DNA replication; DNA repair; cell cycle control.
XX
     Unidentified.
OS
XX
PN
     WO200057184-A2.
XX
PD
     28-SEP-2000.
XX
PF
     17-MAR-2000; 2000WO-GB001024.
XX
PR
     19-MAR-1999;
                    99GB-00006432.
PR
     28-JUN-1999;
                    99GB-00015075.
XX
     (KUDO-) KUDOS PHARM LTD.
PΑ
XX
PI
     Jackson SP, Durocher D;
XX
```

```
WPI; 2000-664872/64.
DR
XX
РΤ
     Assays and screening methods based on direct interaction between FHA
     domains and phosphopeptides, useful for characterizing binding and to
PT
PT
     identify binding partners and modulators of FHA domain-phosphopeptide
PT
     binding.
XX
PS
     Disclosure; Fig 2; 92pp; English.
XX
CC
     The present invention relates to assays and screening methods based on a
CC
     direct interaction between fork head associated (FHA) domains and
CC
     phosphorylated polypeptides, for characterizing the binding of these
CC
     molecules. FHA peptides may be useful for treating medical conditions
CC
     associated with defects in transcriptional control, DNA replication, DNA
CC
     repair, cell cycle control or other cellular process. The method may
     provide valuable insights into checkpoint signalling, has important
CC
CC
     implications for the functions of other FHA domain-containing proteins
CC
     and provides basis for new lines of therapy. The present sequence is a
CC
     peptide used in the present invention
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
  Matches
             4; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            3 GGKK 6
Qy.
              1111
Db
            1 GGKK 4
RESULT 39
AAB50076
ID
     AAB50076 standard; peptide; 11 AA.
XX
AC
     AAB50076;
XX
     19-MAR-2001 (first entry)
DT
XX
DE
     csk tyrosine kinase substrate.
XX
     MLSK; MDCK; autoimmune disorder; Large NIK-Related Kinase 1;
KW
KW
     wound healing; periodontal disease; inflammatory disease; tumour;
     infection; allergy; LNRK1.
KW
XX
OS
     Unidentified.
XX
PN
     WO200073468-A1.
XX
     07-DEC-2000.
PD
XX
     26-MAY-2000; 2000WO-US014696.
PF
XX
PR
     28-MAY-1999;
                    99US-0136781P.
XX
PA
     (IMMV ) IMMUNEX CORP.
XX
```

```
Bird TA, Virca GD, Martin U, Anderson DM;
PI
XX
DR
     WPI; 2001-061546/07.
XX
PT
     Novel murine and human kinase nucleic acids useful for treating
PT
     inflammations, infections, tumors, allergies, autoimmune diseases, and
PT
     for stimulating or suppressing immune responses.
XX
PS
     Example 5; Page 70; 106pp; English.
XX
CC
     The present invention relates to kinases (MDCK-1, -2 and -3 and MLSK-1
CC
     and -2; see AAB50053-B50057, and LNRK-1; see AAB50059). The kinases of
CC
     the present invention are useful for treating a variety of disorders
CC
     listed in the disclosure of the specification, including autoimmune
CC
     disorders, allergic reactions, myeloid or lymphoid cell deficiencies,
CC
     wound healing and tissue repair and replacement, burns, incisions and
CC
     ulcers, periodontal disease, inflammatory diseases, tumours and
CC
     bacterial, viral or fungal infection. The present sequence is a peptide
     kinase substrate used in the present invention to investigate the
CC
CC
     substrate specificity of MLSK-1
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
            4; Conservative 0; Mismatches
                                                   0; Indels
                                                                              0;
  Matches
                                                                 0; Gaps
            5 KKKK 8
QУ
              Db
            1 KKKK 4
RESULT 40
AAM42176
     AAM42176 standard; protein; 11 AA.
ID
XX
AC
    AAM42176;
XX
DT
    22-OCT-2001 (first entry)
XX
     Human polypeptide SEQ ID NO 7107.
DΕ
XX
KW
     Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
KW
     peripheral nervous system; neuropathy; central nervous system; CNS;
ΚW
     Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
KW
     amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
KW
     chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
KW
     leukaemia.
XX
OS
     Homo sapiens.
XX
PN
     WO200153312-A1.
XX
PD
     26-JUL-2001.
XX
PF
     26-DEC-2000: 2000WO-US034263.
XX
```

```
PR
     23-DEC-1999;
                    99US-00471275.
     21-JAN-2000; 2000US-00488725.
PR
     25-APR-2000; 2000US-00552317.
PR
     20-JUN-2000; 2000US-00598042.
PR
PR
     19-JUL-2000; 2000US-00620312.
PR
     03-AUG-2000; 2000US-00653450.
PR
     14-SEP-2000; 2000US-00662191.
PR
     19-OCT-2000; 2000US-00693036.
     29-NOV-2000; 2000US-00727344.
PR
XX
PA
     (HYSE-) HYSEQ INC.
XX
PΙ
     Tang YT,
              Liu C, Asundi V, Chen R, Ma Y, Qian XB,
                                                            Ren F, Wang D;
PΙ
     Wang J, Wang Z, Wehrman T, Xu C, Xue AJ, Yang Y,
                                                            Zhang J,
PΙ
     Zhou P,
              Goodrich R, Drmanac RT;
XX
DR
     WPI; 2001-442253/47.
DR
     N-PSDB; AAI61332.
XX
PТ
     Novel nucleic acids and polypeptides, useful for treating disorders such
PT
     as central nervous system injuries.
XX
PS
     Example 2; SEQ ID NO 7107; 10078pp; English.
XX
CC
     The invention relates to human nucleic acids (AAI57798-AAI61369) and the
CC
     encoded polypeptides (AAM38642-AAM42213) with nootropic,
CC
     immunosuppressant and cytostatic activity. The polynucleotides are useful
CC
     in gene therapy. A composition containing a polypeptide or polynucleotide
CC
     of the invention may be used to treat diseases of the peripheral nervous
CC
     system, such as peripheral nervous injuries, peripheral neuropathy and
CC
     localised neuropathies and central nervous system diseases, such as
CC
     Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC
     lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
CC
     utilisation of the activities such as: Immune system suppression,
CC
     Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
CC
     and thrombolytic activity, cancer diagnosis and therapy, drug screening,
CC
     assays for receptor activity, arthritis and inflammation, leukaemias and
CC
     C.N.S disorders. Note: The sequence data for this patent did not form
CC
     part of the printed specification
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
 Matches
             4; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            4 GKKK 7
Qу
              +++
Db
            8 GKKK 11
RESULT 41
AAB31770
ID
     AAB31770 standard; peptide; 11 AA.
XX
AC
     AAB31770;
XX
```

```
30-APR-2001 (first entry)
DT
XX
DE
     Amino acid sequence of a cross-linking peptide.
XX
KW
     Nucleic acid condensate; cationic linker; gene therapy.
XX
OS
     Synthetic.
XX
     WO200104135-A2.
PN
XX
     18-JAN-2001.
PD
XX
PF
     13-JUL-2000; 2000WO-US019164.
XX
PR
     13-JUL-1999;
                    99US-0143600P.
PR
     05-OCT-1999;
                    99US-0157761P.
XX
PΑ
     (UNMI ) UNIV MICHIGAN.
XX
PI
     Rice KG,
              Adami RC, Mckenzie DL, Collard WT, Kwok K,
                                                               Park Y;
ΡI
     Yang Y;
XX
DR
     WPI; 2001-168410/17.
XX
PT
     Compositions comprising nucleic acid condensates having a nucleic acid
PT
     bound to two low molecular weight cationic linkers, used in human gene
PT
     therapy, and diagnostics.
XX
PS
     Example 6; Page 108; 202pp; English.
XX
CC
     The specification describes a composition comprising a nucleic acid
CC
     condensate. This condensate comprises a nucleic acid bound to two low
CC
    molecular weight cationic linkers. The linkers are crosslinked to each
CC
     other by reaction with a low molecular weight dialdehyde. Alternatively,
CC
     the linkers each contain at least two thiol groups and are crosslinked by
CC
     reaction of the thiol groups. The low molecular weight carriers are
CC
    minimal in size, reduce toxicity, condense DNA into small particles, have
CC
     increased stability, and mediate effective gene expression in a target
CC
     tissue. The nucleic acid condensate is used for gene therapy,
CC
    particularly human gene therapy, and diagnostics. It is also used for
CC
     expressing nucleic acids in cells and providing a nucleic acid to an
     animal. The present sequence represents a cross-linking peptide, which is
CC
CC
     used as a linker in the composition of the invention. The peptide
CC
     condenses DNA
XX
SQ
     Sequence 11 AA;
 Query Match
                          36.4%;
                                  Score 4; DB 4; Length 11;
  Best Local Similarity
                          100.0%;
                                  Pred. No. 1.2e+03;
 Matches
             4; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            5 KKKK 8
Qу
              1111
```

2 KKKK 5

Db

```
ABP19373
     ABP19373 standard; peptide; 11 AA.
XX
AC
     ABP19373;
XX
DT
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002 (first entry)
XX
DE
     HIV B62 super motif pol peptide #379.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; qaq; nef; vpr; vpu;
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
KW
XX
OS
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
     05-OCT-1999;
                    99US-00412863.
PR
XX
     (EPIM-) EPIMMUNE INC.
PΑ
XX
                          Southwood S, Livingston BD, Chesnut R;
PI
               Sidney J,
     Sette A,
PI
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
     WPI; 2001-354887/37.
DR
XX
PΤ
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 265; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
СC
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
     antigens is directed largely toward variable regions of the antigen,
CC
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
```

```
invention. (Updated on 11-SEP-2003 to standardise OS field)
CC
XX
     Sequence 11 AA;
SQ
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
                         100.0%; Pred. No. 1.2e+03;
  Best Local Similarity
           4; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
            5 KKKK 8
Qу
              Db
            6 KKKK 9
RESULT 43
ABP13804
     ABP13804 standard; peptide; 11 AA.
XX
AC
     ABP13804;
XX
DT
     11-SEP-2003 (revised)
DΤ
    15-JUL-2002 (first entry)
XX
DΕ
     HIV A02 super motif pol peptide #719.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antiqen;
ΚW
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PΑ
     (EPIM-) EPIMMUNE INC.
XX
PΙ
                          Southwood S, Livingston BD, Chesnut R;
     Sette A, Sidney J,
PI
     Baker DM, Celis E,
                         Kubo RT, Grey HM;
XX
DR
     WPI; 2001-354887/37.
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PΤ
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 151; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
    human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines.
CC
     particularly when compared to the use of whole antigens in vaccine
```

```
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
     allowing for immune escape due to mutations. The groups for inclusion in
CC
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
     appropriate, for the target disease. Similar engineering of the response
CC
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
     invention. (Updated on 11-SEP-2003 to standardise OS field)
CC
XX
     Sequence 11 AA;
SO
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.2e+03;
             4: Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            5 KKKK 8
Qy
              11111
Db
            5 KKKK 8
RESULT 44
ABP17176
     ABP17176 standard; peptide; 11 AA.
XX
AC
     ABP17176;
XX
DT
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002 (first entry)
XX
DE
     HIV B27 super motif gag peptide #52.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
PF
     05-OCT-2000; 2000WO-US027766.
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PA
     (EPIM-) EPIMMUNE INC.
XX
PI
     Sette A, Sidney J,
                          Southwood S, Livingston BD, Chesnut R;
PΙ
                          Kubo RT, Grey HM;
     Baker DM, Celis E,
XX
```

```
WPI; 2001-354887/37.
DR
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
     Claim 32; Page 221; 448pp; English.
PS
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
     antiquens is directed largely toward variable regions of the antiquen,
CC
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%;
                                  Score 4; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
                                 0; Mismatches
  Matches
             4; Conservative
                                                   0; Indels
                                                                              0;
                                                                  0; Gaps
            4 GKKK 7
Qу
              1111
Db
            1 GKKK 4
RESULT 45
ABP13805
ID
    ABP13805 standard; peptide; 11 AA.
XX
AC
    ABP13805;
XX
DT
     11-SEP-2003
                 (revised)
DT
     15-JUL-2002
                  (first entry)
XX
DE
    HIV A02 super motif pol peptide #720.
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
```

```
XX
PN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
PF
     05-OCT-2000; 2000WO-US027766.
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PA
     (EPIM-) EPIMMUNE INC.
XX
              Sidney J, Southwood S, Livingston BD, Chesnut R;
PΙ
     Sette A.
PΙ
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
DR
     WPI; 2001-354887/37.
XX
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
     Claim 32; Page 151; 448pp; English.
PS
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
     compositions. There is evidence that the immune response to whole
CC
CC
     antigens is directed largely toward variable regions of the antigen,
     allowing for immune escape due to mutations. The groups for inclusion in
CC
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
  Matches
             4; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                              0;
                                                                     Gaps
Qу
            5 KKKK 8
              IIII
Db
            3 KKKK 6
```

```
ID
     AAU76079 standard; peptide; 11 AA.
XX
AC
     AAU76079;
XX
DT
     08-MAY-2002
                  (first entry)
XX
DE
     Nociceptin-like peptide conjugate 16.
XX
     Nociceptin; opioid receptor-like 1; ORL1; hypoatraemia;
KW
KW
     coronary heart failure; diuretic therapy; thiazide; loop diuretic;
KW
     water diuresis; congestive heart failure; liver cirrhosis;
KW
     nephrotic syndrome; hypertension; multiple organ failure;
KW
     acute renal failure; hypokalaemia; oedema.
XX
OS
     Synthetic.
XX
FH
     Kev
                    Location/Qualifiers
FT
     Modified-site
FT
                    /note= "Cys is hydrogenated"
FT
     Modified-site
FT
                    /note= "Lys is amidated"
XX
     WO200198324-A1.
PN
XX
PD
     27-DEC-2001.
XX
PF
     15-JUN-2001; 2001WO-US019113.
XX
PR
     16-JUN-2000; 2000DK-00000944.
     05-OCT-2000; 2000DK-00001485.
PR
PR
     06-DEC-2000; 2000US-0251671P.
PR
     13-JUN-2001; 2001WO-US041008.
XX
PA
     (ZEAL-) ZEALAND PHARM AS.
XX
     Larsen BD, Petersen JS, Kapusta DR, Harlow KW;
PI
XX
DR
     WPI; 2002-171551/22.
XX
PT
     New peptide conjugate useful for preparing medicament for treating
PT
     congestive heart failure, liver cirrhosis, nephrotic syndrome and
PT
     hypertension comprises modified N and/or C terminals.
XX
PS
     Example 17; Page 46; 72pp; English.
XX
     The invention relates to a peptide conjugate of the general formula (A).
CC
CC
     CC
     A^4-A^5-A^6 (B); A^1 = R, K, or H; A^2 = Y, W, or F; A^3 = Y, N, W or F;
CC
     A^4 = K, R or H; A^5 = F, Y, W, L, V or I; and A^6 = R, K or H. Each
CC
     amino acid residue in the hexapeptide may be in the L or D form, Z and Z'
CC
     = a charged peptide chain of 4-20 amino acid residues having the D or L
CC
     configuration or is missing provided that not both of Z and Z' are
CC
     missing; R^1 = H or an acyl group; and R^2 = NR^3R^4 or OH; R^3, R^4 = H,
CC
     C(1-6)alkoxy, aryloxy or a lower alkyl as defined, where the conjugate
CC
     being optionally further linked to a transport moiety, and salts,
CC
     hydrates and their solvates, and C-terminally amidated or their
CC
     esterified derivatives with suitable organic or inorganic acids.
```

```
Alternatively, the conjugate has a general formula (C). R 1-X-Z'-R 2 (C),
CC
CC
     Where R 1, X, Z' and R 2 are same as defined in formula A; and salts,
     hydrates and their solvates, and C-terminally amidated or their
CC
CC
     esterified derivatives with suitable organic or inorganic acids. The
     conjugate may also be linked to counterions selected from anions,
CC
     preferably CH 3COO-, CF 3COO-, Cl-, SO 3^2^-, maleate or oleate. Also
CC
CC
     included are nucleic acids encoding the peptides, a host cell comprising/
     expressing the peptides and antibodies against the peptides. The peptides
CC
CC
     and conjugates are useful for the preparation of a medicament for the
CC
     treatment and/or prevention of hypoatraemia which is preferably
CC
     associated with heart failure, or with intensive diuretic therapy with
CC
     thiazides and/or loop diuretics, water diuresis, congestive heart
CC
     failure, liver cirrhosis, nephrotic syndrome and hypertension, multiple
CC
     organ failure, acute renal failure, disease states associated with
CC
     elevated tone of nociceptin, hypokalaemia, oedema associated with
     coronary heart failure. The hexapeptides are in part based on the
CC
CC
     sequence of formula (RK)YY(RK)(WI)(RK), a partial agonist of the
CC
     nociceptin, opioid receptor-like one (ORL1) which can be used to raise
CC
     antibodies against the conjugates. The present sequence is a peptide
CC
     conjugate of the invention
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 5; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
            4; Conservative 0; Mismatches
 Matches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
            5 KKKK 8
QУ
              6 KKKK 9
Db
RESULT 47
AAU76110
ID
    AAU76110 standard; peptide; 11 AA.
XX
AC
    AAU76110;
XX
    08-MAY-2002 (first entry)
DT
XX
DE
    Nociceptin-like peptide conjugate compound 12.
XX
    Nociceptin; opioid receptor-like 1; ORL1; hypoatraemia;
KW
KW
     coronary heart failure; diuretic therapy; thiazide; loop diuretic;
KW
     water diuresis; congestive heart failure; liver cirrhosis;
KW
     nephrotic syndrome; hypertension; multiple organ failure;
KW
     acute renal failure; hypokalaemia; oedema.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
    Modified-site
FT
                     /note= "Arg is acetylated"
FT
    Modified-site
FT
                     /note= "Lys is amidated"
XX
PN
    WO200198324-A1.
```

XX 27-DEC-2001. PDXX PF15-JUN-2001; 2001WO-US019113. XX 16-JUN-2000; 2000DK-00000944. PR 05-OCT-2000; 2000DK-00001485. PR 06-DEC-2000; 2000US-0251671P. PR 13-JUN-2001; 2001WO-US041008. PR XX PΑ (ZEAL-) ZEALAND PHARM AS. XX PIPetersen JS, Kapusta DR, Harlow KW; Larsen BD, XX DR WPI; 2002-171551/22. XX PTNew peptide conjugate useful for preparing medicament for treating PTcongestive heart failure, liver cirrhosis, nephrotic syndrome and PThypertension comprises modified N and/or C terminals. XX PS Claim 19; Page 52; 72pp; English. XX CCThe invention relates to a peptide conjugate of the general formula (A). CC R 1-Z-X-Z'-R 2 (A); where X = a hexapeptide of formula (B);  $A^1-A^2-A^3 A^{-}4-A^{5}-A^{6}$  (B);  $A^{1}$  = R, K, or H;  $A^{2}$  = Y, W, or F;  $A^{3}$  = Y, N, W or F; CC  $A^4 = K$ , R or H;  $A^5 = F$ , Y, W, L, V or I; and  $A^6 = R$ , K or H. Each CCCC amino acid residue in the hexapeptide may be in the L or D form, Z and Z' = a charged peptide chain of 4-20 amino acid residues having the D or L CC configuration or is missing provided that not both of  ${\tt Z}$  and  ${\tt Z'}$  are CC CC missing;  $R^1 = H$  or an acyl group; and  $R^2 = NR^3R^4$  or OH;  $R^3$ ,  $R^4 = H$ , CC C(1-6) alkoxy, aryloxy or a lower alkyl as defined, where the conjugate CC being optionally further linked to a transport moiety, and salts, CC hydrates and their solvates, and C-terminally amidated or their CC esterified derivatives with suitable organic or inorganic acids. Alternatively, the conjugate has a general formula (C). R 1-X-Z'-R 2 (C), CC CC Where R_1, X, Z' and R_2 are same as defined in formula A; and salts, CC hydrates and their solvates, and C-terminally amidated or their CCesterified derivatives with suitable organic or inorganic acids. The CC conjugate may also be linked to counterions selected from anions, CC preferably CH 3COO-, CF 3COO-, Cl-, SO 3^2^-, maleate or oleate. Also included are nucleic acids encoding the peptides, a host cell comprising/ CC CC expressing the peptides and antibodies against the peptides. The peptides CC and conjugates are useful for the preparation of a medicament for the CC treatment and/or prevention of hypoatraemia which is preferably CC associated with heart failure, or with intensive diuretic therapy with CCthiazides and/or loop diuretics, water diuresis, congestive heart CC failure, liver cirrhosis, nephrotic syndrome and hypertension, multiple CCorgan failure, acute renal failure, disease states associated with CC elevated tone of nociceptin, hypokalaemia, oedema associated with CC coronary heart failure. The hexapeptides are in part based on the CCsequence of formula (RK) YY(RK) (WI) (RK), a partial agonist of the CC nociceptin, opioid receptor-like one (ORL1) which can be used to raise CC antibodies against the conjugates. The present sequence is a peptide CC conjugate of the invention

Sequence 11 AA;

XX SQ

```
Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
  Matches
                                0; Mismatches
             4; Conservative
                                                    0;
                                                        Indels
                                                                               0;
                                                                  0; Gaps
            5 KKKK 8
Qу
              6 KKKK 9
Db
RESULT 48
AAU96727
ID
     AAU96727 standard; peptide; 11 AA.
XX
AC
     AAU96727;
XX
DT
     30-JUL-2002 (first entry)
XX
DE
     Molecular marker for electrophoresis #12.
XX
KW
     Molecular marker; electrophoresis; protein characterisation;
     two dimensional gel electrophoresis; molecular weight; isoelectric point.
KW
XX
os
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
     Modified-site
FT
                     /note= "Cysteine or Protein with C-terminal thioester"
FT
     Modified-site
FT
FT
                     /note= "N alpha-(9-fluorenylmethoxy-carbonyl)-N epsilon-
FT
                     tetramethylrhodamine"
FT
     Modified-site
                     /note= "N alpha-(9-fluorenylmethoxy-carbonyl)-N epsilon-
FT
                     tetramethylrhodamine"
FT
FT
     Modified-site
                     /note= "N alpha-(9-fluorenylmethoxy-carbonyl)-N epsilon-
FT
FT
                     tetramethylrhodamine"
FT
     Modified-site
FT
                     /note= "N alpha-(9-fluorenylmethoxy-carbonyl)-N epsilon-
FT
                     tetramethylrhodamine"
FT
     Modified-site
                     /note= "Thioester-linked histidine"
FT
XX
PN
     WO200213848-A1.
XX
PD
     21-FEB-2002.
XX
PF
     13-AUG-2001; 2001WO-US025276.
XX
PR
     11-AUG-2000; 2000US-0224345P.
XX
PΑ
     (INVI-) INVITROGEN CORP.
XX
PΙ
     Tadayoni-Rebek M, Amshey JW,
                                    Rooney R;
XX
DR
     WPI; 2002-382623/41.
XX
PT
     Marker molecule useful for separation of at least one molecule e.g.
```

36.4%; Score 4; DB 5; Length 11;

Query Match

```
protein in a gel electrophoresis comprises a labeled molecule attached
PT
     via a linker or a bond to a protein or nucleic acid.
PT
XX
PS
     Disclosure; Fig 4; 64pp; English.
XX
CC
     The invention describes marker molecules comprising a labeled molecule
CC
     attached via a linker or a bond to a protein or nucleic acid. The
CC
    molecules are useful: when separating at least one molecule present in a
CC
     sample; for characterisation of at least one protein or molecule; in
CC
    protein marker kits; in two dimensional gel electrophoresis; to analyse
CC
     at least one protein to determine their molecular weights and the
CC
     isoelectric point; and for identifying physical properties of molecular
CC
     species (preferably deoxyribonucleic acid, ribonucleic acid, polypeptide
CC
     and protein) separated the use of electrophoretic systems. The marker
CC
    molecules will generally separate to give narrow, sharp bands or spots
CC
     under electrophoretic conditions and are highly homogeneous, visible
CC
     (preferably coloured) molecular markers that are compatible with
CC
     commercially available separation technique, especially the techniques
CC
     that separate proteins on the basis of charge and/or molecular weight.
CC
     This sequence represents a molecular marker for identifying physical
CC
     properties of molecular species separated by the use of electrophoretic
CC
     systems
XX
     Sequence 11 AA;
SQ
                          36.4%; Score 4; DB 5; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+03;
  Best Local Similarity
             4; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                              0;
            5 KKKK 8
Qy
             -1111
            2 KKKK 5
Db
RESULT 49
ABB74600
    ABB74600 standard; peptide; 11 AA.
ID
XX
    ABB74600;
AC
XX
    18-APR-2002 (first entry)
DT
XX
DE
    Transcription factor nuclear localisation signal peptide SEQ ID NO:364.
XX
KW
     Fusogenic; nuclear localisation signal; NLS; encapsulation; lipogene;
KW
     liposome; micelle; karyophilic; cytostatic; antitumour; solid tumour;
KW
     peptide-lipid-polynucleotide complex; neoplastic disease; gene therapy;
KW
    breast carcinoma; prostate carcinoma.
XX
OS
    Homo sapiens.
XX
ΡN
    WO200193836-A2.
XX
PD
    13-DEC-2001.
XX
PF
     08-JUN-2001; 2001WO-US018657.
XX
```

```
PR
     09-JUN-2000; 2000US-0210925P.
XX
     (BOUL/) BOULIKAS T.
PΑ
XX
PΙ
     Boulikas T;
XX
     WPI; 2002-164295/21.
DR
XX
PT
     Encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with
     nuclear localization signal/fusogenic peptide conjugates into targeted
PT
PT
     liposome complexes.
XX
PS
     Claim 14; Page 76; 107pp; English.
XX
CC
     The present invention describes a method for producing micelles with
CC
     entrapped therapeutic agents. The method comprises: (1) combining
CC
     negatively charged agent with a cationic lipid in a ratio where 30-90 \ \%
CC
     of the negatively charged atoms are neutralised by positive charges on
CC
     lipid molecules to form an electrostatic micelle complex in 20-80 %
CC
     ethanol; and (2) combining the micelle complex of (a) with fusogenic-
     karyophilic peptide conjugates in a 0.0-0.3 ratio, therefore producing
CC
CC
    micelles with entrapped therapeutic agents. Also described is a method
CC
     for delivering a therapeutic agent in vivo, comprising the administration
CC
     of the micelle. ABB74256 to ABB74858 represent specifically claimed
CC
    nuclear localisation signal (NLS) peptides for use in the method as the
CC
     fusogenic-karyophilic peptides. The micelles produced can have cytostatic
     and antitumour activities. The peptide-lipid-polynucleotide complexes
CC
CC
     produced are useful for inhibiting the progression of neoplastic
CC
     diseases. The invention relates to the field of gene therapy and is
CC
    directed toward methods for producing peptide-lipid-polynucleotide
     complexes suitable for delivery of polynucleotides. The encapsulated
CC
CC
    molecules display therapeutic efficacy in eradicating solid tumours
CC
     including but not limited to breast carcinoma or prostate carcinoma.
    ABB74235 to ABB74255 are used in the exemplification of the present
CC
CC
     invention
XX
SO
     Sequence 11 AA;
                          36.4%;
 Query Match
                                  Score 4; DB 5; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
             4; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                      Gaps
                                                                              0;
            4 GKKK 7
Qу
              \mathbf{H}
Db
            1 GKKK 4
RESULT 50
ABB74327
     ABB74327 standard; peptide; 11 AA.
XX
AC
    ABB74327;
XX
DT
     18-APR-2002 (first entry)
XX
DE
     Bipartite/split nuclear localisation signal peptide SEQ ID NO:91.
XX
```

```
Fusogenic; nuclear localisation signal; NLS; encapsulation; lipogene;
KW
     liposome; micelle; karyophilic; cytostatic; antitumour; solid tumour;
KW
     peptide-lipid-polynucleotide complex; neoplastic disease; gene therapy;
KW
ΚW
     breast carcinoma; prostate carcinoma.
XX
OS
     Synthetic.
XX
PN
     WO200193836-A2.
XX
PD
     13-DEC-2001.
XX
PF
     08-JUN-2001; 2001WO-US018657.
XX
PR
     09-JUN-2000; 2000US-0210925P.
XX
PA
     (BOUL/) BOULIKAS T.
XX
PI
     Boulikas T;
XX
     WPI; 2002-164295/21.
DR
XX
     Encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with
PT
     nuclear localization signal/fusogenic peptide conjugates into targeted
PT
     liposome complexes.
PT
XX
PS
     Claim 14; Page 58; 107pp; English.
XX
CC
     The present invention describes a method for producing micelles with
     entrapped therapeutic agents. The method comprises: (1) combining
CC
     negatively charged agent with a cationic lipid in a ratio where 30-90 %
CC
     of the negatively charged atoms are neutralised by positive charges on
CC
CC
     lipid molecules to form an electrostatic micelle complex in 20-80 %
CC
     ethanol; and (2) combining the micelle complex of (a) with fusogenic-
CC
     karyophilic peptide conjugates in a 0.0-0.3 ratio, therefore producing
    micelles with entrapped therapeutic agents. Also described is a method
CC
     for delivering a therapeutic agent in vivo, comprising the administration
CC
CC
     of the micelle. ABB74256 to ABB74858 represent specifically claimed
     nuclear localisation signal (NLS) peptides for use in the method as the
CC
     fusogenic-karyophilic peptides. The micelles produced can have cytostatic
CC
     and antitumour activities. The peptide-lipid-polynucleotide complexes
CC
CC
    produced are useful for inhibiting the progression of neoplastic
     diseases. The invention relates to the field of gene therapy and is
CC
CC
     directed toward methods for producing peptide-lipid-polynucleotide
     complexes suitable for delivery of polynucleotides. The encapsulated
CC
CC
     molecules display therapeutic efficacy in eradicating solid tumours
CC
     including but not limited to breast carcinoma or prostate carcinoma.
CC
     ABB74235 to ABB74255 are used in the exemplification of the present
CC
     invention
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 5; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
             4; Conservative
                                 0; Mismatches
                                                                              0;
                                                   0; Indels
                                                                  0; Gaps
```

CC

RESULT 51 ABG67641 ID ABG67641 standard; peptide; 11 AA. XX AC ABG67641; XX DT07-OCT-2002 (first entry) XX DE Human ADPI tryptic digest peptide #350. XX KW Human; Alzheimer's disease; AD; brain tissue; ADF; ADPI; KW Alzheimer's disease-associated feature; neuroprotective; Alzheimer's disease-associated protein isoform; nootropic; KW ADPI tryptic digest peptide. KW XX OS Homo sapiens. XX PNWO200246767-A2. XX PD13-JUN-2002. XX 29-NOV-2001; 2001WO-GB005289. PF XX 08-DEC-2000; 2000US-0254431P. PRXX PΑ (OXFO-) OXFORD GLYCOSCIENCES UK LTD. XX PΙ Herath HMAC, Parekh RB, Rohlff C; XX WPI; 2002-508575/54. DR XX PTScreening, diagnosis or prognosis of Alzheimer's disease in subject, PT comprises detecting Alzheimer disease-associated features or Alzheimer PTdisease-associated protein isoforms in brain tissue from the subject. XX PS Claim 7; Page 84; 427pp; English. XΧ

The present invention relates to methods and compositions for the screening, diagnosis or prognosis of Alzheimer's disease (AD) in a subject. The method comprises analysing a sample of brain tissue from a subject by 2D electrophoresis to generate a 2D array of Alzheimer's disease-associated features (ADFs), whose relative abundance correlates with the presence, absence, stage or severity of AD and comparing the abundance of each feature with the abundance of that chosen feature in brain tissue from persons free from AD. The invention also describes Alzheimer's disease-associated protein isoforms (ADPIs) detectable in brain tissue. The methods and compositions of the invention are useful for the screening, diagnosis or prognosis of AD in a subject, for determining the stage or severity of AD in a subject, for identifying a subject at risk of developing AD, or for monitoring the effect of therapy administered to a subject having AD. Antibodies capable of binding to ADPIs are useful for treating or preventing AD, and for determining the efficacy of a given treatment regime. An agent that modulates the activity of ADPI is useful in the manufacture of a medicament for the

```
CC
     human ADPI tryptic digest peptides
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 5; Length 11;
 Query Match
 Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
                                0; Mismatches
                                                  0; Indels
                                                                              0:
 Matches
             4; Conservative
                                                                  0; Gaps
Qу
            1 AEGG 4
              \Box
Db
            3 AEGG 6
RESULT 52
ABG70612
    ABG70612 standard; peptide; 11 AA.
ID
XX
AC
    ABG70612;
XX
     10-DEC-2002 (first entry)
DT
XX
DE
     [Lys]11 11 HBr peptide.
XX
KW
     Active agent delivery system; degradation; controlled release; stability;
KW
     stomach; conformational protection; digestion;
ΚW
     intestinal tract absorption.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Oualifiers
FT
    Modified-site
                     11
                     /note= "Modified by 11 HBr"
FT
XX
PN
    US2002099013-A1.
XX
     25-JUL-2002.
PD
XX
PF
     22-AUG-2001; 2001US-00933708.
XX
PR
     14-NOV-2000; 2000US-0247556P.
     14-NOV-2000; 2000US-0247558P.
PR
     14-NOV-2000; 2000US-0247559P.
PR
     14-NOV-2000; 2000US-0247560P.
PR
     14-NOV-2000; 2000US-0247561P.
PR
     14-NOV-2000; 2000US-0247594P.
PR
PR
     14-NOV-2000; 2000US-0247595P.
     14-NOV-2000; 2000US-0247606P.
PR
     14-NOV-2000; 2000US-0247607P.
PR
     14-NOV-2000; 2000US-0247608P.
PR
     14-NOV-2000; 2000US-0247609P.
PR
     14-NOV-2000; 2000US-0247610P.
PR
     14-NOV-2000; 2000US-0247611P.
PR
     14-NOV-2000; 2000US-0247612P.
PR
PR
     14-NOV-2000; 2000US-0247613P.
PR
     14-NOV-2000; 2000US-0247614P.
     14-NOV-2000; 2000US-0247615P.
PR
```

treatment or prevention of AD in a subject. ABG67292-ABG68038 represent

```
14-NOV-2000; 2000US-0247616P.
PR
     14-NOV-2000; 2000US-0247617P.
PR
     14-NOV-2000; 2000US-0247620P.
PR
     14-NOV-2000; 2000US-0247621P.
PR
     14-NOV-2000; 2000US-0247630P.
PR
     14-NOV-2000; 2000US-0247631P.
PR
     14-NOV-2000; 2000US-0247632P.
PR
PR
     14-NOV-2000; 2000US-0247633P.
     14-NOV-2000; 2000US-0247634P.
PR
     14-NOV-2000; 2000US-0247635P.
PR
     14-NOV-2000; 2000US-0247698P.
PR
     14-NOV-2000; 2000US-0247699P.
PR
     14-NOV-2000; 2000US-0247700P.
PR
     14-NOV-2000; 2000US-0247701P.
PR
     14-NOV-2000; 2000US-0247702P.
PR
PR
     14-NOV-2000; 2000US-0247797P.
PR
     14-NOV-2000; 2000US-0247798P.
PR
     14-NOV-2000; 2000US-0247799P.
     14-NOV-2000; 2000US-0247800P.
PR
     14-NOV-2000; 2000US-0247801P.
PR
     14-NOV-2000; 2000US-0247802P.
PR
     14-NOV-2000; 2000US-0247803P.
PŔ
PR
     14-NOV-2000; 2000US-0247804P.
PR
     14-NOV-2000; 2000US-0247805P.
     14-NOV-2000; 2000US-0247807P.
PR
     14-NOV-2000; 2000US-0247832P.
PR
     14-NOV-2000; 2000US-0247833P.
PR
     14-NOV-2000; 2000US-0247926P.
PR
     14-NOV-2000; 2000US-0247927P.
PR
     14-NOV-2000; 2000US-0247928P.
PR
     14-NOV-2000; 2000US-0247929P.
PR
     14-NOV-2000; 2000US-0247930P.
PR
PR
     08-MAR-2001; 2001US-0274622P.
XX
     (PICC/) PICCARIELLO T.
PΑ
PA
     (OLON/) OLON L P.
     (KIRK/) KIRK R J.
PA
XX
PΙ
     Piccariello T, Olon LP,
                               Kirk RJ;
XX
     WPI; 2002-722623/78.
DR
XX
PT
     Composition useful for protecting active agents from degradation
PT
     comprises polypeptide covalently attached to active agent.
XX
PS
     Example 17; Page 19; 34pp; English.
XX
CC
     The present invention relates to a composition comprising a polypeptide
CC
     and an active agent covalently attached to the polypeptide. Also
CC
     described is a method for delivery of an active agent to a patient, a
CC
     method for protecting an active agent from degradation, and a method for
CC
     controlling release of an active agent from a composition. The
     polypeptide stabilises the active agent, primarily in the stomach,
CC
CC
     through conformational protection and prevents digestion in the stomach.
CC
     Delivery of the active agent is controlled, in part, by the kinetics of
CC
     unfolding of the carrier peptide to the specific site of action. The
```

pharmacological effect can be prolonged by delayed release of the active

```
CC
     agent. The active agent can be combined to produce a synergistic effect.
CC
     The absorption of the active agent in the intestinal tract can be
CC
     increased. The present sequence represents a peptide synthesised in the
     examples of the present invention
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 5; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
  Matches
             4; Conservative 0; Mismatches
                                                    0;
                                                        Indels
                                                                  0; Gaps
                                                                               0;
Qу
            5 KKKK 8
              \mathbf{I}
            1 KKKK 4
Db
RESULT 53
ABP98787
ID
     ABP98787 standard; peptide; 11 AA.
XX
AC
     ABP98787;
XX
DT
     25-JUL-2003 (first entry)
XX
     Peptide #4 for quantitative depletion analysis method.
DE
XX
KW
     Protein analysis; quantitative depletion analysis; side-chain binding;
     pharmacoproteomics; drug target discovery; diagnosis; cancer;
KW
KW
     Alzheimer's disease.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
FT
     Modified-site
FT
                     /note= "biotinylated N-terminus"
XX
PN
     W02003027681-A2.
XX
     03-APR-2003.
PD
XX
PF
     27-SEP-2002; 2002WO-GB004364.
XX
PR
     27-SEP-2001; 2001GB-00023295.
     27-SEP-2001; 2001US-0326177P.
PR
XX
PA
     (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
XX
PΙ
     Soloviev M,
                 Terrett JA;
XX
     WPI; 2003-371940/35.
DR
XX
PT
     Analysis of protein mixtures derived from biological samples useful in
PT
     e.g. diagnosis involves contacting a peptide mixture with an amino acid
PT
     filtering agent and depleting the mixture followed by identification of
PT
     the peptide.
XX
PS
     Example 1; Page 24; 33pp; English.
```

```
CC
     The invention relates to a method of analysing proteins in a mixture by:
CC
     (a) treating the protein mixture to produce a mixture of peptides; (b)
CC
     contacting the peptide mixture with at least one amino acid filtering
     agent that specifically binds the side-chain of an amino acid; (c)
CC
CC
     depleting the peptide mixture that binds to the filtering agent; and (d)
CC
     identifying at least one peptide remaining in the depleted mixture. The
CC
     method is used to analyse a protein mixture derived from a biological
CC
     sample, e.g. for proteomic analysis for determining the physiological or
CC
     biochemical state of a body fluid, tissue, or a cell and for determining
     the protein complement of body fluids or exudates; in pharmacoproteomics;
CC
     for identification of markers of disease; in drug target discovery; in
CC
CC
     diagnosis; in conjunction with therapy; for routine diagnostic
CC
     applications; for quantifying multiple proteins whose expression levels
CC
     best correlate with a physiological or biochemical state; for identifying
     complement of proteins within a sample; and for monitoring a clinical
CC
CC
     study e.g. to evaluate drugs for therapy of a disease e.g. cancer and
CC
     Alzheimer's disease. In an example of the invention 10 synthetic peptides
CC
     (ABP98784-ABP98793) were obtained and used in the method with a
CC
     methionine peptide depletion agent
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%;
                                  Score 4;
                                            DB 6; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
  Matches
             4; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                              0;
                                                                  0; Gaps
            2 EGGK 5
Qу
              1111
Db
            8 EGGK 11
RESULT 54
AA027080
     AAO27080 standard; peptide; 11 AA.
TD
XX
AC
     AA027080;
XX
DT
     29-MAY-2003 (first entry)
XX
DΕ
     Fibrinogen E fragment related peptide #5.
XX
KW
     Fibrinogen E fragment; vitronectin receptor; modulating angiogenesis;
KW
     vitronectin binding activity.
XX
OS
     Unidentified.
XX
PN
     WO2003010190-A2.
XX
PD
     06-FEB-2003.
XX
PF
     23-JUL-2002; 2002WO-EP008204.
XX
PR .
    23-JUL-2001; 2001GB-00017738.
PR
     19-FEB-2002; 2002GB-00003882.
PR
     19-FEB-2002; 2002GB-00003883.
XX
```

XX

```
PA
      (NOVS ) NOVARTIS AG.
PΑ
     (NOVS ) NOVARTIS-ERFINDUNGEN VERW GES MBH.
PΑ
     (BIOA-) BIOACTA LTD.
XX
PΙ
     Garcia-Echeverria C,
                           Lewis C, Robinson J;
XX
DR
     WPI; 2003-229636/22.
XX
PT
     Screening for agents that modulate the interaction of the fibrinogen E
PT
     fragments or peptide derivatives with a vitronectin receptor, comprises
PT
     forming a preparation of a polypeptide, peptide and agent to be tested.
XX
PS
     Claim 12; Page 20; 29pp; English.
XX
CC
     The invention relates to a novel method for screening for the
CC
     identification of agents that modulate the interaction of the fibrinogen
CC
     E fragment or its peptide derivative with a vitronectin receptor. The
CC
     novel method comprises forming a preparation of a polypeptide, peptide
CC
     and agent to be tested, and detecting or measuring the effect of the
CC
     agent on the interaction of the peptide and polypeptide. The methods are
CC
     useful for screening for agents that modulate the interaction of the
CC
     fibrinogen E fragment or its peptide derivative with a vitronectin
CC
     receptor. The method is also useful for identifying agents with
CC
     vitronectin binding activity capable of modulating angiogenesis. This
     sequence represents a fibrinogen E fragment peptide relating to the
CC
CC
     screening method of the invention. NOTE: The Xaa residues in the peptide
CC
     sequence can be any amino acid
XX
SQ
     Sequence 11 AA;
  Query Match
                           36.4%; Score 4; DB 6; Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 1.2e+03;
  Matches
             4; Conservative
                                  0; Mismatches
                                                     0; Indels
                                                                   0;
                                                                       Gaps
                                                                                0;
            1 AEGG 4
Qу
              \mathbf{1} \mathbf{1} \mathbf{1} \mathbf{1}
Db
            4 AEGG 7
RESULT 55
AA027103
     AAO27103 standard; peptide; 11 AA.
XX
AC
     AA027103;
XX
DT
     29-MAY-2003 (first entry)
XX
DΕ
     Fibrinogen E fragment variant peptide #3.
XX
KW
     Fibrinogen E fragment; vitronectin receptor; modulating angiogenesis;
KW
     vitronectin binding activity; variant.
XX
OS
     Unidentified.
XX
PN
     WO2003010190-A2.
XX
PD
     06-FEB-2003.
```

```
XX
     23-JUL-2002; 2002WO-EP008204.
PF
XX
     23-JUL-2001; 2001GB-00017738.
PR
     19-FEB-2002; 2002GB-00003882.
PR
     19-FEB-2002; 2002GB-00003883.
PR
XX
PΑ
     (NOVS ) NOVARTIS AG.
PΑ
     (NOVS ) NOVARTIS-ERFINDUNGEN VERW GES MBH.
PA
     (BIOA-) BIOACTA LTD.
XX
PΙ
     Garcia-Echeverria C, Lewis C, Robinson J;
XX
DR
     WPI; 2003-229636/22.
XX
PT
     Screening for agents that modulate the interaction of the fibrinogen E
PT
     fragments or peptide derivatives with a vitronectin receptor, comprises
PT
     forming a preparation of a polypeptide, peptide and agent to be tested.
XX
PS
     Disclosure; Fig 1; 29pp; English.
XX
CC
     The invention relates to a novel method for screening for the
CC
     identification of agents that modulate the interaction of the fibrinogen
CC
     E fragment or its peptide derivative with a vitronectin receptor. The
CC
     novel method comprises forming a preparation of a polypeptide, peptide
     and agent to be tested, and detecting or measuring the effect of the
CC
     agent on the interaction of the peptide and polypeptide. The methods are
CC
CC
     useful for screening for agents that modulate the interaction of the
     fibrinogen E fragment or its peptide derivative with a vitronectin
CC
     receptor. The method is also useful for identifying agents with
CC
CC
     vitronectin binding activity capable of modulating angiogenesis. This
CC
     sequence represents a fibrinogen E fragment variant peptide relating to
CC
     the screening method of the invention. NOTE: The Xaa residues in the
CC
     peptide sequence can be any amino acid
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 6; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
  Matches
             4; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AEGG 4
Qу
              \Pi\Pi
            4 AEGG 7
Db
RESULT 56
ADA18540
     ADA18540 standard; peptide; 11 AA.
XX
AC
     ADA18540;
XX
DT
     20-NOV-2003 (first entry)
XX
DΕ
     Human alpha fibrinogen peptide #2.
XX
     Alpha fibrinogen; human; myocardial infarction; SELDI; mass spectrometry;
ΚW
```

```
KW
     surfaces enhanced for laser desorption/ionisation.
XX
OS
     Homo sapiens.
XX
PN
     US2002160422-A1.
XX
PD
     31-OCT-2002.
XX
PF
     30-APR-2001; 2001US-00846342.
XX
PR
     30-APR-2001; 2001US-00846342.
XX
PΑ
     (JACK/) JACKOWSKI G.
PA
     (THAT/) THATCHER B.
PΑ
     (MARS/) MARSHALL J.
PΑ
     (YANT/) YANTHA J.
     (VREE/) VREES T.
PΑ
XX
PΙ
     Jackowski G, Thatcher B, Marshall J, Yantha J, Vrees T;
XX
DR
     WPI; 2003-219986/21.
XX
PT
     Novel biopolymer marker useful in indicating disease state, in particular
     myocardial infarction.
PΤ
XX
PS
     Claim 1; Page 7; 10pp; English.
XX
     The invention relates to a biopolymer marker useful in indicating at
CC
     least one particular disease state. This marker is characterised as alpha
CC
     fibrinogen having a molecular weight of 1077 Daltons and is useful for
CC
     indicating a disease state, in particular myocardial infarction. The
CC
CC
     marker sequences are useful as antigens in immunoassays for the detection
     of those individuals suffering from the disease known to be evidenced by
CC
     the marker sequence. The marker provides an efficient diagnostic tool for
CC
     rapidly and accurately diagnosing disease states such as myocardial
CC
     infarction. The marker was detected by the technique of surfaces enhanced
CC
     for laser desorption/ionisation (SELDI) mass spectroscopy. The present
CC
     sequence is the alpha fibrinogen marker peptide.
CC
XX
SO
     Sequence 11 AA;
                          36.4%; Score 4; DB 6; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
  Matches
             4; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AEGG 4
Qу
              1111
            5 AEGG 8
Db
RESULT 57
ADA26448
ID
     ADA26448 standard; peptide; 11 AA.
XX
AC
     ADA26448;
XX
DT
     20-NOV-2003 (first entry)
```

```
XX
DΕ
     Suitable segment A peptide.
XX
KW
     Molecular marker; separation; characterisation; protein; electrophoresis.
XX
OS
     Synthetic.
XX
FΗ
     Keγ
                     Location/Qualifiers
     Modified-site
FT
FT
                     /note= "modified with TMR"
FT
     Modified-site
FT
                     /note= "modified with TMR"
     Modified-site
FT
FΤ
                     /note= "modified with TMR"
FT
     Modified-site
FT
                     /note= "modified with TMR"
XX
PN
     WO2003070967-A2.
XX
PD
     28-AUG-2003.
XX
PF
     20-FEB-2003; 2003WO-US004814.
XX
PR
     20-FEB-2002; 2002US-0357634P.
XX
PΑ
     (INVI-) INVITROGEN CORP.
XX
PI
     Tadayoni-Rebek M, Amshey JW,
                                    Rooney R;
XX
     WPI; 2003-712621/67.
DR
XX
PT
     New marker molecule, useful in electrophoretic diagnosis and genomic
PT
     analysis, comprises labeled molecule linked to protein or nucleic acid of
PT
     known molecular weight.
XX
PS
     Disclosure; Fig 4; 88pp; English.
XX
     The invention relates to a novel marker molecule with the structure A-L-
CC -
     B, where A is a labelled molecule, L is a linker or bond, and B is a
CC
     protein or nucleic acid. Molecules of the invention are molecular weight
CC
CC
     markers for use in electrophoresis, especially for separation or
CC
     characterisation of proteins and other molecules. Marker molecules of the
CC
     invention are highly homogenous (they have known molecular weight and
CC
     isoelectric point and are prepared in a site-specific manner, where only
CC
     one coupling reaction can occur, ensuring formation of a single product),
CC
     visible, compatible with current separation techniques, especially
CC
     electrophoresis, and, when separated, will produce narrow, sharp bands or
CC
     spots. They may also be synthesised to include tags for ease of
CC
     purification. The current sequence represents a peptide that is used as a
CC
     "Segment A" of the marker molecules of the invention. It was created by
CC
     solid phase synthesis.
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 6; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
            4; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
```

```
5 KKKK 8
Qу
              1111
            2 KKKK 5
Db
RESULT 58
ADA23765
     ADA23765 standard; peptide; 11 AA.
XX
AC
    ADA23765;
XX
DT
     20-NOV-2003
                 (first entry)
XX
DE
    Alzheimer's disease-associated protein isoform tryptic peptide #374.
XX
     human; Alzheimer's disease; vascular dementia; Lewy body dementia;
KW
KW
     schizophrenia; Parkinson's disease; multiple sclerosis; depression;
KW
     Alzheimer's disease-associated protein isoform; ADPI.
XX
os
    Homo sapiens.
XX
    US2003064411-A1.
PN
XX
     03-APR-2003.
ΡD
XX
     10-DEC-2001; 2001US-00014340.
PF
XX
PR
     08-DEC-2000; 2000US-0254431P.
XX
PA
     (HERA/) HERATH H M A C.
     (PARE/) PAREKH R B.
PΑ
PΑ
     (ROHL/) ROHLFF C.
XX
PI
     Herath HMAC, Parekh RB,
                               Rohlff C;
XX
     WPI; 2003-540784/51.
DR
XX
PT
     Screening, diagnosis or prognosis of Alzheimer's disease in subject,
PT
     involves analyzing test sample of brain tissue from subject, and
PT
     comparing feature in test sample with that of person(s) free from
PT
     Alzheimer's disease.
XX
     Disclosure; SEQ ID NO 374; 115pp; English.
PS
XX
CC
     The invention relates to a method of screening or diagnosing Alzheimer's
CC
     disease in a subject. The method is useful for screening, diagnosis or
CC
     prognosis of Alzheimer's disease in a subject for determining the stage
CC
     of severity of Alzheimer's disease in a subject, for identifying a
CC
     subject at risk of developing Alzheimer's disease, or for monitoring the
CC
     effect of therapy administered to a subject having Alzheimer's disease.
CC
     The method is also useful in treating vascular dementia, Lewy body
CC
     dementia, schizophrenia, Parkinson's disease, multiple sclerosis or
CC
     depression. The inventive method identifies sensitive and specific
     biomarkers for the diagnosis of Alzheimer's disease in living subjects.
CC
CC
     It provides therapeutic agents for Alzheimer's disease that works
```

quickly, potently, specifically with fewer side effects. The present

CC

```
CC
     associated protein isoform tryptic peptide.
XX
     Sequence 11 AA;
SQ
  Query Match
                          36.4%; Score 4; DB 6; Length 11;
                          100.0%; Pred. No. 1.2e+03;
  Best Local Similarity
             4; Conservative 0; Mismatches
  Matches
                                                   0; Indels
                                                                      Gaps
                                                                              0;
            1 AEGG 4
Qу
              IIII
            3 AEGG 6
Db
RESULT 59
ADC35041
ID
     ADC35041 standard; peptide; 11 AA.
XX
AC
     ADC35041;
XX
DT
     18-DEC-2003 (first entry)
XX
DE
     RhoA protein transduction domain.
XX
     protein transduction domain; PTD; cell-penetrating capacity; C-terminus;
KW
     Ras-like GTPase; Ras-like GTPase inhibition;
KW
     leukaemic cell migration inhibition; leukaemia; RhoA.
ΚW
XX
OS
     Synthetic.
     Unidentified.
OS
XX
ΡN
     WO2003042239-A1.
XX
PD
     22-MAY-2003.
XX
PF
     11-NOV-2002; 2002WO-NL000722.
XX
PR
     12-NOV-2001; 2001EP-00204305.
XX
PA
     (SANQ-) STICHTING SANQUIN BLOEDVOORZIENING.
XX
PΙ
     Ten Klooster JP, Van Hennik PB, Voermans C, Hordijk PL;
XX
DR
     WPI; 2003-568944/53.
XX
PT
     New protein transduction domain peptides having cell-penetrating
PT
     capacity, are useful for inhibiting cellular functions mediated by the
PT
     Ras-like GTPase in eukaryotic cells, and for inhibiting leukemic cell
PT
     migration.
XX
PS
     Claim 9; Page 29; 46pp; English.
XX
CC
     The invention comprises amino acid sequences corresponding to a protein
CC
     transduction domain (PTD) which has a cell-penetrating capacity and an
CC
     amino acid sequence corresponding to a variable part of the C-terminus of
CC
     a Ras-like GTPase having Ras-like GTPase signalling capacity. The
CC
     peptides of the invention are useful for inhibiting cellular functions
```

sequence represents the amino acid sequence of a Alzheimer's disease-

CC

```
CC
     mediated by the Ras-like GTPase in eukaryotic cells - particularly
CC
     mammalian cells, and for inhibiting leukaemic cell migration. The present
CC
     amino acid sequence represents a RhoA protein transduction domain of the
CC
     invention.
XX
SQ
     Sequence 11 AA;
  Query Match
                           36.4%; Score 4; DB 7; Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 1.2e+03;
  Matches
             4; Conservative 0; Mismatches
                                                     0; Indels
                                                                   0; Gaps
                                                                                0;
Qγ
            4 GKKK 7
               \mathbf{I} \mathbf{I} \mathbf{I} \mathbf{I}
            6 GKKK 9
Db
RESULT 60
ADC35004
     ADC35004 standard; peptide; 11 AA.
ID
XX
AC
     ADC35004;
XX
DT
     18-DEC-2003 (first entry)
XX
DE
     Rho-like protein C-terminal peptide #1.
XX
KW
     protein transduction domain; PTD; cell-penetrating capacity; C-terminus;
KW
     Ras-like GTPase; Ras-like GTPase inhibition;
KW
     leukaemic cell migration inhibition; leukaemia; Rho-like protein.
XX
OS
     Unidentified.
XX
     WO2003042239-A1.
PN
XX
PD
     22-MAY-2003.
XX
PF
     11-NOV-2002; 2002WO-NL000722.
XX
PR
     12-NOV-2001; 2001EP-00204305.
XX
     (SANQ-) STICHTING SANQUIN BLOEDVOORZIENING.
PΑ
XX
PΙ
     Ten Klooster JP, Van Hennik PB, Voermans C, Hordijk PL;
XX
DR
     WPI; 2003-568944/53.
XX
PT
     New protein transduction domain peptides having cell-penetrating
PT
     capacity, are useful for inhibiting cellular functions mediated by the
PT
     Ras-like GTPase in eukaryotic cells, and for inhibiting leukemic cell
PT
     migration.
XX
PS
     Disclosure; Page 14; 46pp; English.
XX
CC
     The invention comprises amino acid sequences corresponding to a protein
CC
     transduction domain (PTD) which has a cell-penetrating capacity and an
CC
     amino acid sequence corresponding to a variable part of the C-terminus of
CC
     a Ras-like GTPase having Ras-like GTPase signalling capacity. The
```

```
mediated by the Ras-like GTPase in eukaryotic cells - particularly
CC
     mammalian cells, and for inhibiting leukaemic cell migration. The present
CC
     amino acid sequence represents a C-terminal sequence from a Rho-like
CC
CC
    protein.
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 7; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.2e+03;
 Matches
            4; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                              0;
Qу
            4 GKKK 7
              \Pi\Pi\Pi
Db
            6 GKKK 9
RESULT 61
ADE10861
    ADE10861 standard; peptide; 11 AA.
ID
XX
    ADE10861;
AC
XX
     29-JAN-2004 (first entry)
DT
XX
DE
     Chimeric hepatitis B virus related B-cell epitope seqid 95.
XX
     hepatotropic; virucide; antiinflammatory; chronic hepatitis; vaccine;
KW
     recombinant hepatitis B core chimeric protein; HBc chimeric protein;
KW
ΚW
     hepatitis B infection; T-cel stimulator; B-cell epitope.
XX
OS
    Neisseria meningitidis.
XX
PN
     US2003198645-A1.
XX
PD
    23-OCT-2003.
XX
     21-FEB-2003; 2003US-00372076.
PF
XX
PR
     21-FEB-2002; 2002US-00080299.
PR
     21-FEB-2002; 2002US-00082014.
XX
     (PAGE/) PAGE M.
PA
PA
     (FRIE/) FRIEDE M.
XX
PI
     Page M, Friede M;
XX
DR
    WPI; 2003-852775/79.
XX
PT
     Treating chronic hepatitis B infection by administering a T cell-
PT
     stimulating vaccine containing immunogenic particles having recombinant
PΤ
     carboxy-terminal truncated hepatitis B core (HBc) chimeric protein
PT
     molecules.
XX
PS
     Disclosure; SEQ ID NO 95; 111pp; English.
XX
     The invention describes a method of treating chronic hepatitis comprising
CC
```

peptides of the invention are useful for inhibiting cellular functions

CC

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CC
     administering to a patient a T cell-stimulating amount of a vaccine
     comprising immunogenic particles dissolved or dispersed in a diluent,
CÇ
CC
     where the immunogenic particles consists of recombinant hepatitis B core
CC
     (HBc) chimeric protein molecules, and maintaining the patient to induce T
CC
     cells activated against HBc. The methods and compositions of the present
     invention are useful for treating chromic hepatitis B infection. This is
CC
CC
     the amino acid sequence of a chimeric hepatitis B virus related B-cell
CC
     epitope useful for expression within the HBV chimer at the N-terminus,
CC
     within the immunoigenic loop and/or at the C-terminus.
XX
SQ
     Sequence 11 AA;
  Query Match
                           36.4%;
                                  Score 4; DB 7; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
  Matches
             4; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            6 KKKM 9
Qу
              \mathbf{I}
Db
            5 KKKM 8
RESULT 62
AAR24537
     AAR24537 standard; protein; 11 AA.
XX
AC
     AAR24537;
XX
DT
     25-MAR-2003
                  (revised)
DT
     04-JAN-1992
                  (first entry)
XX
DE
     Sequence of a cancer cell infiltration inhibiting peptide.
XX
ΚW
     Cancer cell infiltration inhibiting peptide; metastasis therapy.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
     Misc-difference 7. .11
FT
                     /note= "1-5 AAs may optionally be omitted, sequentially,
FT
FT
                     from C-terminal"
XX
PN
     WO9209627-A1.
XX
PD
     11-JUN-1992.
XX
PF
                    91WO-JP001648.
     29-NOV-1991;
XX
PR
     30-NOV-1990;
                    90JP-00330612.
     05-FEB-1991;
                    91JP-00035260.
PR
PR
     29-MAR-1991;
                    91JP-00091305.
PR
     29-MAR-1991;
                    91JP-00091306.
XX
PΑ
     (ASAG ) ASAHI GLASS CO LTD.
XX
PΙ
     Isoai A, Hama Y, Kumagai H;
XX
DR
     WPI; 1992-217020/26.
```

```
New cancer cell infiltration inhibiting peptide - comprises 5-20
РΤ
     aminoacid residues and a biopolymer for treating cancer metastasis.
PT
XX
     Claim 2; Page 19; 29pp; Japanese.
PS
XX
CC
     The peptides of the invention may be used as cancer metastasis
CC
     inhibitors. They possess human cancer cell infiltration inhibitor
CC
     activity. They may be bound to a non-toxic organic high mol. wt.
     substance such as a protein, chondroitin sulphate or hyaluronic acid.
CC
CC
     (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.3e+04;
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             3; Conservative
            1 AEG 3
Qу
              111
Db
            4 AEG 6
RESULT 63
AAR24543
     AAR24543 standard; protein; 11 AA.
XX
AC
     AAR24543;
XX
DT
     25-MAR-2003 (revised)
DT
     04-JAN-1992 (first entry)
XX
DE
     Sequence of a cancer cell infiltration inhibiting peptide.
XX
     Cancer cell infiltration inhibiting peptide; metastasis therapy.
KW
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
FT
     Misc-difference 7. .11
FT
                     /note= "1-5 AAs may optionally be omitted, sequentially,
                     from C-terminal"
FT
XX
PN
     WO9209627-A1.
XX
PD
     11-JUN-1992.
XX
PF
     29-NOV-1991;
                    91WO-JP001648.
XX
PR
     30-NOV-1990;
                    90JP-00330612.
     05-FEB-1991;
                    91JP-00035260.
PR
PR
     29-MAR-1991;
                    91JP-00091305.
PR
     29-MAR-1991;
                    91JP-00091306.
XX
     (ASAG ) ASAHI GLASS CO LTD.
PA
XX
PΙ
     Isoai A, Hama Y, Kumagai H;
```

XX

```
XX
DR
     WPI; 1992-217020/26.
XX
     New cancer cell infiltration inhibiting peptide - comprises 5-20
PT
PT
     aminoacid residues and a biopolymer for treating cancer metastasis.
XX
PS
     Claim 2; Page 19; 29pp; Japanese.
XX
CC
     The peptides of the invention may be used as cancer metastasis
CC
     inhibitors. They possess human cancer cell infiltration inhibitor
CC
     activity. They may be bound to a non-toxic organic high mol. wt.
CC
     substance such as a protein, chondroitin sulphate or hyaluronic acid.
CC
     (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.3e+04;
  Matches
             3; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AEG 3
Qу
              Db
            4 AEG 6
RESULT 64
AAR24539
     AAR24539 standard; protein; 11 AA.
XX
     AAR24539;
AC
XX:
DT
     25-MAR-2003
                  (revised)
DT
     04-JAN-1992 (first entry)
XX
DE
     Sequence of a cancer cell infiltration inhibiting peptide.
XX
KW
     Cancer cell infiltration inhibiting peptide; metastasis therapy.
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FH
FT
     Misc-difference 7. .11
                     /note= "1-5 AAs may optionally be omitted, sequentially,
FT
FT
                     from C-terminal"
XX
PN
     W09209627-A1.
XX
PD
     11-JUN-1992.
XX
PF
                    91WO-JP001648.
     29-NOV-1991;
XX
PR
     30-NOV-1990;
                    90JP-00330612.
PR
                    91JP-00035260.
     05-FEB-1991;
PR
     29-MAR-1991;
                    91JP-00091305.
                    91JP-00091306.
PR
     29-MAR-1991;
XX
PA
     (ASAG ) ASAHI GLASS CO LTD.
```

```
XX
PI
              Hama Y, Kumagai H;
     Isoai A,
XX
DR
     WPI; 1992-217020/26.
XX
PT
     New cancer cell infiltration inhibiting peptide - comprises 5-20
PT
     aminoacid residues and a biopolymer for treating cancer metastasis.
XX
PS
     Claim 2; Page 19; 29pp; Japanese.
XX
CC
     The peptides of the invention may be used as cancer metastasis
CC
     inhibitors. They possess human cancer cell infiltration inhibitor
CC
     activity. They may be bound to a non-toxic organic high mol. wt.
CC
     substance such as a protein, chondroitin sulphate or hyaluronic acid.
     (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.3e+04;
 Matches
             3; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            1 AEG 3
Qy
              Db
            4 AEG 6
RESULT 65
AAR24536
ID
    AAR24536 standard; protein; 11 AA.
XX
AC
     AAR24536;
XX,
DT
     25-MAR-2003
                  (revised)
DT
     04-JAN-1992
                 (first entry)
XX
DE
     Sequence of a cancer cell infiltration inhibiting peptide.
XX
    Cancer cell infiltration inhibiting peptide; metastasis therapy.
KW
XX
OS
     Synthetic.
XX
FΗ
     Key
                     Location/Qualifiers
FT
    Misc-difference 7. .11
FT
                     /note= "1-5 AAs may optionally be omitted, sequentially,
FT
                     from C-terminal"
XX
PN
    WO9209627-A1.
XX
PD
     11-JUN-1992.
XX
PF
                    91WO-JP001648.
     29-NOV-1991;
XX
    30-NOV-1990;
PR
                    90JP-00330612.
PR
     05-FEB-1991;
                    91JP-00035260.
PR
     29-MAR-1991;
                    91JP-00091305.
                    91JP-00091306.
PR
    29-MAR-1991;
```

```
XX
PΑ
     (ASAG ) ASAHI GLASS CO LTD.
XX
PI
     Isoai A, Hama Y, Kumagai H;
XX
DR
     WPI; 1992-217020/26.
XX
PТ
     New cancer cell infiltration inhibiting peptide - comprises 5-20
     aminoacid residues and a biopolymer for treating cancer metastasis.
PT
XX
PS
     Claim 2; Page 19; 29pp; Japanese.
XX
CC
     The peptides of the invention may be used as cancer metastasis
CC
     inhibitors. They possess human cancer cell infiltration inhibitor
CC
     activity. They may be bound to a non-toxic organic high mol. wt.
CC
     substance such as a protein, chondroitin sulphate or hyaluronic acid.
     (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.3e+04;
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Qу
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Db
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XX
AC
     AAR27765;
XX
     25-MAR-2003 (revised)
DT
DT
     03-MAR-1993
                 (first entry)
XX
DE
     BSA-binding disulphide-constrained micropeptide #1.
XX
KW
     Potential binding domain; TN2 phage library; bovine serum albumen.
XX
os .
    Synthetic.
XX
FH
                     Location/Qualifiers
FT
     Disulfide-bond 4..9
XX
PN
     WO9215677-A1.
XX
     17-SEP-1992.
PD
XX
PF
     27-FEB-1992;
                    92WO-US001456.
XX
PR
     01-MAR-1991;
                    91US-00664989.
XX
PΑ
     (PROT-) PROTEIN ENG CORP.
XX
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PI
     Ladner RC, Roberts BL,
                              Ley AC,
                                       Kent RB;
XX
DR
     WPI; 1992-331723/40.
XX
     Developing binding proteins for target material - using library
PT
PT
     displaying chimeric micro-proteins having intra-chain covalent crosslink.
XX
PS
     Example 1; Page 123; 151pp; English.
XX
CC
     DNA coding for a family of microproteins containing a cystine moiety with
CC
     a disulphide bridge span of 4 amino acids was fused to the gene III of
CC
     M13. The fusion proteins were displayed on the phage surface. The library
CC
     was screened for streptavidin binding micropeptides; the phage were bound
CC
     to bovine serum albumen-coated wells and bound phage were eluted and used
CC
     to infect bacteria. New phage stock was harvested for two further
CC
     enhancement cycles, after which some of the individual phage were
CC
     sequenced and tested. Micropeptide #1 is one of the peptide sequences
CC
     which bound to BSA; there was no consensus motif between the cysteine
CC
     residues of the 8 micropeptides isolated by this procedure. See also
CC
     AAR27766-R27772. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
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  Query Match
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  Best Local Similarity
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 Matches
             3; Conservative
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Qy
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Db
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RESULT 67
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ID
XX
AC
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XX
DT
     25-MAR-2003
                 (revised)
     03-MAR-1993
DT
                 (first entry)
XX
     BSA-binding disulphide-constrained micropeptide #7.
DE
XX
KW
     Potential binding domain; TN2 phage library; bovine serum albumen.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
FT
     Disulfide-bond 4. .9
XX
ΡN
    WO9215677-A1.
XX
PD
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XX
PF
     27-FEB-1992;
                    92WO-US001456.
XX
PR
                    91US-00664989.
     01-MAR-1991;
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XX
PΑ
     (PROT-) PROTEIN ENG CORP.
XX
     Ladner RC, Roberts BL, Ley AC, Kent RB;
PΙ
XX
DR
     WPI; 1992-331723/40.
XX
PT
     Developing binding proteins for target material - using library
     displaying chimeric micro-proteins having intra-chain covalent crosslink.
PT
XX
PS
     Example 1; Page 123; 151pp; English.
XX
CC
     DNA coding for a family of microproteins containing a cystine moiety with
CC
     a disulphide bridge span of 4 amino acids was fused to the gene III of
CC
     M13. The fusion proteins were displayed on the phage surface. The library
CC
     was screened for streptavidin binding micropeptides; the phage were bound
     to bovine serum albumen-coated wells and bound phage were eluted and used
CC
     to infect bacteria. New phage stock was harvested for two further
CC
     enhancement cycles, after which some of the individual phage were
CC
     sequenced and tested. Micropeptide #7 is one of the peptide sequences
CC
     which bound to BSA; there was no consensus motif between the cysteine
CC
     residues of the 8 micropeptides isolated by this procedure. See also
CC
     AAR27765-R27772. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
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Db
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RESULT 68
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ID
XX
AC
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XX
DT
     25-MAR-2003
                 (revised)
DT
     23-MAR-1994
                 (first entry)
XX
DE
     Phospholipase C inhibitory peptide #12.
XX
KW
     PLC; inhibitor; anti-bacterial; anti-microbial; phospholipase.
XX
OS
     Synthetic.
XX
FH
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FT
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FT
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XX
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PN
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XX
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XX
PF
     11-MAR-1993;
                    93WO-JP000299.
XX
PR
     11-MAR-1992;
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XX
PA
     (KYOW ) KYOWA HAKKO KOGYO CO LTD.
XX
PI
     Saito H,
              Ishikawa G, Yamasaki M,
                                          Honma Y;
XX
DR
     WPI; 1993-303402/38.
XX
PT
     Mutant peptide having phospholipase C inhibiting activity - with
PT
     specified aminoacid sequence or modified sequence.
XX
PS
     Claim 4; Page 35; 53pp; Japanese.
XX
     Phospholipase C inhibitor peptides are derived from sequence AAR41826 by
CC
CC
     deletion, substitution or addition of at least 1 amino acid (see AAR41827
CC
     -R41833 for specifically claimed mutant peptides). The amino acids in the
     inhibitory peptides, especially the N- and C- terminal residues can also
CC
     be modified (see AAR41834-R41853 for specific examples). The PLC
CC
CC
     inhibitors also inhibit cell proliferation and have good antibacterial
CC
     properties. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
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Db
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ID
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XX
AC
     AAR41846;
XX
DT
     25-MAR-2003
                  (revised)
DT
     23-MAR-1994
                  (first entry)
XX
DΕ
     Phospholipase C inhibitory peptide #21.
XX
KW
     PLC; inhibitor; anti-bacterial; anti-microbial; phospholipase.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
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FT
FT
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XX
ΡN
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XX
PD
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XX
PF
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                    93WO-JP000299.
XX
PR
     11-MAR-1992;
                    92JP-00052394.
XX
PA
     (KYOW ) KYOWA HAKKO KOGYO CO LTD.
XX
PI
     Saito H, Ishikawa G, Yamasaki M,
XX
     WPI; 1993-303402/38.
DR
XX
PT
     Mutant peptide having phospholipase C inhibiting activity - with
PT
     specified aminoacid sequence or modified sequence.
XX
PS
     Claim 4; Page 41; 53pp; Japanese.
XX
CC
     Phospholipase C inhibitor peptides are derived from sequence AAR41826 by
CC
     deletion, substitution or addition of at least 1 amino acid (see AAR41827
     -R41833 for specifically claimed mutant peptides). The amino acids in the
CC
     inhibitory peptides, especially the N- and C- terminal residues can also
CC
CC
     be modified (see AAR41834-R41853 for specific examples). The PLC
CC
     inhibitors also inhibit cell proliferation and have good antibacterial
CC
     properties. (Updated on 25-MAR-2003 to correct PN field.)
XX
     Sequence 11 AA;
SQ
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Qу
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            4 KMR 6
Db
RESULT 70
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ID
XX
AC
     AAR41844;
XX
     25-MAR-2003 (revised)
DT
DT
     23-MAR-1994 (first entry)
XX
DE
     Phospholipase C inhibitory peptide #19.
XX
KW
     PLC; inhibitor; anti-bacterial; anti-microbial; phospholipase.
XX
OS
     Synthetic.
XX
FH
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XX
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     11-MAR-1993;
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XX
PR
     11-MAR-1992;
                    92JP-00052394.
XX
PA
     (KYOW ) KYOWA HAKKO KOGYO CO LTD.
XX
PΙ
     Saito H, Ishikawa G, Yamasaki M,
                                         Honma Y;
XX
     WPI; 1993-303402/38.
DR
XX
PT
     Mutant peptide having phospholipase C inhibiting activity - with
PT
     specified aminoacid sequence or modified sequence.
XX
PS
     Claim 4; Page 40; 53pp; Japanese.
XX
CC
     Phospholipase C inhibitor peptides are derived from sequence AAR41826 by
     deletion, substitution or addition of at least 1 amino acid (see AAR41827
CC
CC
     -R41833 for specifically claimed mutant peptides). The amino acids in the
     inhibitory peptides, especially the N- and C- terminal residues can also
CC
CC
     be modified (see AAR41834-R41853 for specific examples). The PLC
     inhibitors also inhibit cell proliferation and have good antibacterial
CC
CC
     properties. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
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            8 KMR 10
Qy
              III
Db
            4 KMR 6
RESULT 71
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ID
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XX
AC
    AAR41830;
XX
DT
     25-MAR-2003 (revised)
DT
     23-MAR-1994
                 (first entry)
XX
DE
     Phospholipase C inhibitory peptide #5.
XX
KW
     PLC; inhibitor; anti-bacterial; anti-microbial; phospholipase.
XX
OS
     Synthetic.
XX
PN
     WO9318062-A1.
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XX
PD
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XX
PF
     11-MAR-1993;
                    93WO-JP000299.
XX
PR
     11-MAR-1992;
                    92JP-00052394.
XX
PA
     (KYOW ) KYOWA HAKKO KOGYO CO LTD.
XX
PΙ
     Saito H, Ishikawa G, Yamasaki M,
                                         Honma Y;
XX
DR
     WPI; 1993-303402/38.
XX
     Mutant peptide having phospholipase C inhibiting activity - with
PT
     specified aminoacid sequence or modified sequence.
PT
XX
PS
     Claim 2; Page 32; 53pp; Japanese.
XX
CC
     Phospholipase C inhibitor peptides are derived from sequence AAR41826 by
CC
     deletion, substitution or addition of at least 1 amino acid (see AAR41827
CC
     -R41833 for specifically claimed mutant peptides). The amino acids in the
     inhibitory peptides, especially the N- and C- terminal residues can also
CC
     be modified (see AAR41834-R41853 for specific examples). The PLC
CC
CC
     inhibitors also inhibit cell proliferation and have good antibacterial
CC
     properties. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
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  Best Local Similarity
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 Matches
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                                                                     Gaps
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Qy
              111
Db
            4 KMR 6
RESULT 72
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ID
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XX
AC
     AAR41843;
XX
DT
     25-MAR-2003 (revised)
DT
     23-MAR-1994
                  (first entry)
XX
DΕ
     Phospholipase C inhibitory peptide #18.
XX
     PLC; inhibitor; anti-bacterial; anti-microbial; phospholipase.
KW
XX
OS
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XX
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PR
     11-MAR-1992;
                    92JP-00052394.
XX
PA
     (KYOW ) KYOWA HAKKO KOGYO CO LTD.
XX
PΙ
     Saito H, Ishikawa G,
                           Yamasaki M,
                                         Honma Y:
XX
DR
     WPI; 1993-303402/38.
XX
PT
     Mutant peptide having phospholipase C inhibiting activity - with
PT
     specified aminoacid sequence or modified sequence.
XX
     Claim 4; Page 39; 53pp; Japanese.
PS
XX
CC
     Phospholipase C inhibitor peptides are derived from sequence AAR41826 by
     deletion, substitution or addition of at least 1 amino acid (see AAR41827
CC
     -R41833 for specifically claimed mutant peptides). The amino acids in the
CC
CC
     inhibitory peptides, especially the N- and C- terminal residues can also
     be modified (see AAR41834-R41853 for specific examples). The PLC
CC
CC
     inhibitors also inhibit cell proliferation and have good antibacterial
     properties. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
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Qу
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RESULT 73
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XX
AC
     AAR41842;
XX
                 (revised)
DT
     25-MAR-2003
DT
     23-MAR-1994
                  (first entry)
XX
DE
     Phospholipase C inhibitory peptide #17.
XX
KW
     PLC; inhibitor; anti-bacterial; anti-microbial; phospholipase.
XX
OS
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XX
FH
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                    92JP-00052394.
XX
PΑ
     (KYOW ) KYOWA HAKKO KOGYO CO LTD.
XX
PΙ
     Saito H, Ishikawa G, Yamasaki M,
                                         Honma Y;
XX
DR
     WPI; 1993-303402/38.
XX
PT
     Mutant peptide having phospholipase C inhibiting activity - with
PT
     specified aminoacid sequence or modified sequence.
XX
     Claim 4; Page 39; 53pp; Japanese.
PS
XX
CC
     Phospholipase C inhibitor peptides are derived from sequence AAR41826 by
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CC
     -R41833 for specifically claimed mutant peptides). The amino acids in the
CC
CC
     inhibitory peptides, especially the N- and C- terminal residues can also
     be modified (see AAR41834-R41853 for specific examples). The PLC
CC
     inhibitors also inhibit cell proliferation and have good antibacterial
CC
CC
     properties. (Updated on 25-MAR-2003 to correct PN field.)
XX
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 Matches
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Qу
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Db
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TD
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AC
     AAR41853;
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DT
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DT
     23-MAR-1994
                 (first entry)
XX
DΕ
     Phospholipase C inhibitory peptide #28.
XX
KW
     PLC; inhibitor; anti-bacterial; anti-microbial; phospholipase.
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OS
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XX
PR
     11-MAR-1992;
                    92JP-00052394.
XX
PA
     (KYOW ) KYOWA HAKKO KOGYO CO LTD.
XX
PΙ
     Saito H, Ishikawa G, Yamasaki M,
                                         Honma Y;
XX
     WPI; 1993-303402/38.
DR
XX
     Mutant peptide having phospholipase C inhibiting activity - with
PT
PT
     specified aminoacid sequence or modified sequence.
XX
     Claim 4; Page 46; 53pp; Japanese.
PS
XX
CC
     Phospholipase C inhibitor peptides are derived from sequence AAR41826 by
     deletion, substitution or addition of at least 1 amino acid (see AAR41827
CC
     -R41833 for specifically claimed mutant peptides). The amino acids in the
CC
     inhibitory peptides, especially the N- and C- terminal residues can also
CC
     be modified (see AAR41834-R41853 for specific examples). The PLC
CC
     inhibitors also inhibit cell proliferation and have good antibacterial
CC
     properties. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
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SQ
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ID
XX
AC
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XX
DT
     25-MAR-2003 (revised)
DT
     23-MAR-1994
                 (first entry)
XX
DE
     Phospholipase C inhibitory peptide #20.
XX
KW
     PLC; inhibitor; anti-bacterial; anti-microbial; phospholipase.
XX
OS
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XX
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XX
PR
     11-MAR-1992;
                    92JP-00052394.
XX
PA
     (KYOW ) KYOWA HAKKO KOGYO CO LTD.
XX
ΡI
     Saito H, Ishikawa G, Yamasaki M,
                                         Honma Y;
XX
DR
     WPI; 1993-303402/38.
XX
     Mutant peptide having phospholipase C inhibiting activity - with
PT
     specified aminoacid sequence or modified sequence.
PT
XX
PS
     Claim 4; Page 41; 53pp; Japanese.
XX
CC
     Phospholipase C inhibitor peptides are derived from sequence AAR41826 by
CC
     deletion, substitution or addition of at least 1 amino acid (see AAR41827
     -R41833 for specifically claimed mutant peptides). The amino acids in the
CC
     inhibitory peptides, especially the N- and C- terminal residues can also
CC
     be modified (see AAR41834-R41853 for specific examples). The PLC
CC
CC
     inhibitors also inhibit cell proliferation and have good antibacterial
CC
     properties. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
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                          100.0%; Pred. No. 1.3e+04;
  Matches
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                                                    0; Indels
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Qу
              | | | |
            4 KMR 6
Db
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Search completed: April 8, 2004, 15:40:08

Job time : 44.3077 secs

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OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:08; Search time 11.3077 Seconds

(without alignments)

50.221 Million cell updates/sec

Title: US-09-787-443A-19

Perfect score: 11

Sequence:

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Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched:

389414 seqs, 51625971 residues

Word size :

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Total number of hits satisfying chosen parameters:

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Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

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21, Appl
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14, Appl
15, Appl
39, Appl
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## ALIGNMENTS

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RESULT 1
US-08-105-904B-9
; Sequence 9, Application US/08105904B
; Patent No. 6001364
  GENERAL INFORMATION:
    APPLICANT: Rose, Keith
    APPLICANT: Offord, Robin
    TITLE OF INVENTION: HETERO-POLYOXIME COMPOUNDS AND THEIR
    TITLE OF INVENTION: PREPARATION BY PARALLEL ASSEMBLY
    NUMBER OF SEQUENCES: 24
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Cooley Godward Castro Huddleson & Tatum
      STREET: 5 Palo Alto Square, 3000 El Camino Real
      CITY: Palo Alto
      STATE: California
      COUNTRY: U.S.A.
      ZIP: 94306
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
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OPERATING SYSTEM: PC-DOS/MS-DOS
   SOFTWARE: PatentIn Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
   APPLICATION NUMBER: US/08/105,904B
   FILING DATE: 31-AUG-1993
   CLASSIFICATION: 424
 PRIOR APPLICATION DATA:
   APPLICATION NUMBER: US 08/057,594
   FILING DATE: 05-MAY-1993
   CLASSIFICATION: 424
 ATTORNEY/AGENT INFORMATION:
   NAME: Neeley, Richard L.
   REGISTRATION NUMBER: 30,092
   REFERENCE/DOCKET NUMBER: ABIC-001/02US
 TELECOMMUNICATION INFORMATION:
   TELEPHONE: (415)843-5000
   TELEFAX: (415)857-0663
   TELEX: 380816 CooleyPA
INFORMATION FOR SEQ ID NO: 9:
 SEQUENCE CHARACTERISTICS:
   LENGTH: 11 amino acids
   TYPE: amino acid
   TOPOLOGY: linear
 MOLECULE TYPE: peptide
 HYPOTHETICAL: NO
 FEATURE:
   NAME/KEY: Modified-site
   LOCATION:
   OTHER INFORMATION: GXL-Gly
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; Patent No. 6001364
  GENERAL INFORMATION:
    APPLICANT: Rose, Keith
    APPLICANT: Offord, Robin
    TITLE OF INVENTION: HETERO-POLYOXIME COMPOUNDS AND THEIR
    TITLE OF INVENTION: PREPARATION BY PARALLEL ASSEMBLY
    NUMBER OF SEQUENCES: 24
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: Cooley Godward Castro Huddleson & Tatum
      STREET: 5 Palo Alto Square, 3000 El Camino Real
      CITY: Palo Alto
      STATE: California
      COUNTRY: U.S.A.
      ZIP: 94306
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
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      COMPUTER: IBM PC compatible
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      OPERATING SYSTEM: PC-DOS/MS-DOS
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      APPLICATION NUMBER: US/08/105,904B
      FILING DATE: 31-AUG-1993
      CLASSIFICATION: 424
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/057,594
;
      FILING DATE: 05-MAY-1993
      CLASSIFICATION: 424
    ATTORNEY/AGENT INFORMATION:
      NAME: Neeley, Richard L.
      REGISTRATION NUMBER: 30,092
      REFERENCE/DOCKET NUMBER: ABIC-001/02US
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415)843-5000
       TELEFAX: (415)857-0663
       TELEX: 380816 CooleyPA
   INFORMATION FOR SEQ ID NO: 21:
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; Patent No. 6174530
  GENERAL INFORMATION:
    APPLICANT: Rose, Keith
    APPLICANT: Offord, Robin
    TITLE OF INVENTION: HOMOGENOUS POLYOXIME COMPOSITIONS AND THEIR
    TITLE OF INVENTION: PREPARATION BY PARALLEL ASSEMBLY
    NUMBER OF SEQUENCES: 15
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Cooley Godward Castro Huddleson & Tatum
      STREET: 5 Palo Alto Square
      CITY: Palo Alto
      STATE: California
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COUNTRY: U.S.A.
    ZIP: 94036
 COMPUTER READABLE FORM:
   MEDIUM TYPE: Floppy disk
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   SOFTWARE: PatentIn Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
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   FILING DATE: 31-AUG-1993
   CLASSIFICATION: 424
 PRIOR APPLICATION DATA:
   APPLICATION NUMBER: US 08/057,594
   FILING DATE: 05-MAY-1993
   CLASSIFICATION: 424
 ATTORNEY/AGENT INFORMATION:
   NAME: Neeley, Richard L.
   REGISTRATION NUMBER: 30,092
   REFERENCE/DOCKET NUMBER: ABIC-001/01US
 TELECOMMUNICATION INFORMATION:
   TELEPHONE: (415) 843 5070
   TELEFAX: (415) 857-0663
   TELEX: 380816 CooleyPA
INFORMATION FOR SEQ ID NO: 9:
 SEQUENCE CHARACTERISTICS:
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   TYPE: amino acid
   TOPOLOGY: linear
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    APPLICANT: Rose, Keith
    APPLICANT: Offord, Robin
    TITLE OF INVENTION: HOMOGENOUS POLYOXIME COMPOSITIONS AND THEIR
    TITLE OF INVENTION: PREPARATION BY PARALLEL ASSEMBLY
    NUMBER OF SEQUENCES: 15
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Cooley Godward Castro Huddleson & Tatum
      STREET: 5 Palo Alto Square
      CITY: Palo Alto
      STATE: California
      COUNTRY: U.S.A.
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    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/057,594
      FILING DATE: 05-MAY-1993
      CLASSIFICATION: 424
    ATTORNEY/AGENT INFORMATION:
      NAME: Neeley, Richard L.
      REGISTRATION NUMBER: 30,092
      REFERENCE/DOCKET NUMBER: ABIC-001/01US
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 843 5070
      TELEFAX: (415) 857-0663
      TELEX: 380816 CooleyPA
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; Patent No. 5432260
  GENERAL INFORMATION:
    APPLICANT: Stahl, Philip D.
    TITLE OF INVENTION: HIGH AFFINITY MANNOSE RECEPTOR
    TITLE OF INVENTION: LIGANDS
    NUMBER OF SEQUENCES: 19
    CORRESPONDENCE ADDRESS:
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ADDRESSEE: Irell & Manella
       STREET: 545 Middlefield Road, Suite 200
       CITY: Menlo Park
       STATE: California
       COUNTRY: USA
       ZIP: 94025
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/694,983
      FILING DATE: 19910503
      CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
      NAME: Murashige, Kate H.
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 9500-0039.00
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: 415-327-7250
      TELEFAX: 415-327-2951
      TELEX: 706141
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; Sequence 39, Application US/08592500
; Patent No. 6005089
  GENERAL INFORMATION:
    APPLICANT: Lanza, Francois
    APPLICANT: Phillips, David R.
    APPLICANT: Cazenave, Jean-Pierre
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TITLE OF INVENTION:
                          Platelet Glycoprotein V Gene and Uses
     NUMBER OF SEQUENCES: 43
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Townsend and Townsend Khourie and Crew
       STREET: 379 Lytton Avenue
       CITY: Palo Alto
       STATE: California
       COUNTRY: US
       ZIP: 94301
     COMPUTER READABLE FORM:
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       MEDIUM TYPE: Floppy disk
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       SOFTWARE: PatentIn Release #1.0, Version #1.25
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     CURRENT APPLICATION DATA:
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       FILING DATE:
       CLASSIFICATION:
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 08/089,455
       FILING DATE: 09-JUL-1993
     ATTORNEY/AGENT INFORMATION:
       NAME: Dow, Karen B.
       REGISTRATION NUMBER:
                             29,684
       REFERENCE/DOCKET NUMBER: 12418-28
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 326-2400
       TELEFAX: (415) 326-2422
   INFORMATION FOR SEQ ID NO:
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       TOPOLOGY: unknown
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       NAME/KEY:
                  Region
       LOCATION:
                  7..9
       OTHER INFORMATION: /note= "Amino acid residues
       OTHER INFORMATION: identical to GPV."
US-08-592-500-39
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Query Match
                         36.4%; Score 4; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.5e+02;
            4; Conservative 0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                           0;
            1 AEGG 4
Qу
             \perp
Db
            1 AEGG 4
RESULT 7
US-08-970-833-8
; Sequence 8, Application US/08970833
; Patent No. 6022859
   GENERAL INFORMATION:
    APPLICANT: Kiessling, Laura L.
    APPLICANT: Murphy, Regina M.
    TITLE OF INVENTION: INHIBITORS OF BETA-AMYLOID TOXICITY
    NUMBER OF SEQUENCES: 11
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Quarles & Brady
       STREET: 411 East Wisconsin Avenue
;
      CITY: Milwaukee
;
      STATE: Wisconsin
      COUNTRY: U.S.A.
      ZIP: 53202-4497
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/970,833
      FILING DATE:
      CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
      NAME: Baker, Jean C.
      REGISTRATION NUMBER: 35,433
      REFERENCE/DOCKET NUMBER: 960296.94291
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (414) 277-5709
      TELEFAX: (414) 271-3552
   INFORMATION FOR SEQ ID NO: 8:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-970-833-8
  Query Match
                         36.4%; Score 4; DB 3; Length 11;
 Best Local Similarity 100.0%; Pred. No. 3.5e+02;
 Matches
            4; Conservative
                               0; Mismatches 0; Indels
                                                             0; Gaps
                                                                           0;
           5 KKKK 8
Qу
             +++
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RESULT 8
US-08-195-006-39
; Sequence 39, Application US/08195006
; Patent No. 6083688
   GENERAL INFORMATION:
     APPLICANT: Lanza, Francois
     APPLICANT: Phillips, David R.
     APPLICANT: Cazenave, Jean-Pierre
     TITLE OF INVENTION: Platelet Glycoprotein V Gene and Uses
     NUMBER OF SEQUENCES: 43
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Townsend and Townsend Khourie and Crew
       STREET: 379 Lytton Avenue
       CITY: Palo Alto
       STATE: California
       COUNTRY: US
       ZIP: 94301
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/195,006
       FILING DATE: 10-FEB-1994
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/089,455
      FILING DATE: 09-JUL-1993
;
    ATTORNEY/AGENT INFORMATION:
      NAME: Dow, Karen B.
       REGISTRATION NUMBER:
                            29,684
       REFERENCE/DOCKET NUMBER: 12418-28
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 326-2400
       TELEFAX: (415) 326-2422
;
   INFORMATION FOR SEQ ID NO: 39:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    FEATURE:
      NAME/KEY: Peptide
      LOCATION:
                 1..11
;
      OTHER INFORMATION:
                         /note= "Amino acid sequence of the
      OTHER INFORMATION:
                          human fibrinogen (Fg) A-alpha 1 chain thrombin
      OTHER INFORMATION:
                          cleavage site."
    FEATURE:
      NAME/KEY:
                 Region
      LOCATION:
                 1..2
      OTHER INFORMATION:
                          /note= "Amino acid residues
      OTHER INFORMATION: identical to GPV."
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```
FEATURE:
       NAME/KEY: Region
       LOCATION:
       OTHER INFORMATION: /note= "Amino acid residue
       OTHER INFORMATION: identical to GPV."
     FEATURE:
       NAME/KEY:
                  Region
       LOCATION:
                 7..9
       OTHER INFORMATION: /note= "Amino acid residues
       OTHER INFORMATION: identical to GPV."
US-08-195-006-39
  Query Match
                          36.4%; Score 4; DB 3; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 3.5e+02;
 Matches
            4; Conservative 0; Mismatches
                                                 0;
                                                      Indels
                                                                 0; Gaps
                                                                             0;
Qу
            1 AEGG 4
             \Box\Box\Box
Db
            1 AEGG 4
RESULT 9
US-08-584-043A-5
; Sequence 5, Application US/08584043A
; Patent No. 6344436
  GENERAL INFORMATION:
    APPLICANT: Smith, Louis C.
    APPLICANT: Sparrow, James T.
    APPLICANT: Hauer, Jochen
    APPLICANT: Mims, Martha P.
    TITLE OF INVENTION: LIPOPHILIC PEPTIDES FOR
    TITLE OF INVENTION: MACROMOLECULE DELIVERY
    NUMBER OF SEQUENCES: 139
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Lyon & Lyon
      STREET: 633 West Fifth Street
      STREET:
               Suite 4700
      CITY: Los Angeles
      STATE: California
      COUNTRY: U.S.A.
      ZIP: 90071-2066
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
      MEDIUM TYPE: storage
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: IBM P.C. DOS 6.0
      SOFTWARE: Word Perfect 6.1
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/584,043A
;
      FILING DATE: January 8, 1996
;
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Warburg, Richard J.
      REGISTRATION NUMBER: 32,327
```

```
REFERENCE/DOCKET NUMBER: 217/189
;
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (213) 489-1600
       TELEFAX: (213) 955-0440
       TELEX: 67-3510
   INFORMATION FOR SEQ ID NO: 5:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-584-043A-5
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.5e+02;
  Matches
           4; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            5 KKKK 8
Qу
              \perp
Db
            1 KKKK 4
RESULT 10
US-08-584-043A-43
; Sequence 43, Application US/08584043A
; Patent No. 6344436
   GENERAL INFORMATION:
    APPLICANT: Smith, Louis C.
    APPLICANT: Sparrow, James T.
    APPLICANT: Hauer, Jochen APPLICANT: Mims, Martha P.
    TITLE OF INVENTION: LIPOPHILIC PEPTIDES FOR
    TITLE OF INVENTION: MACROMOLECULE DELIVERY
    NUMBER OF SEQUENCES: 139
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Lyon & Lyon
       STREET: 633 West Fifth Street
      STREET: Suite 4700
       CITY: Los Angeles
       STATE: California
      COUNTRY: U.S.A.
       ZIP: 90071-2066
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
      MEDIUM TYPE: storage
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: IBM P.C. DOS 6.0
      SOFTWARE: Word Perfect 6.1
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/584,043A
      FILING DATE: January 8, 1996
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
       FILING DATE:
    ATTORNEY/AGENT INFORMATION:
```

```
NAME: Warburg, Richard J.
       REGISTRATION NUMBER: 32,327
       REFERENCE/DOCKET NUMBER: 217/189
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (213) 489-1600
      TELEFAX: (213) 955-0440
      TELEX: 67-3510
  INFORMATION FOR SEQ ID NO: 43:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      OTHER INFORMATION: "Xaa" stands for any naturally
      OTHER INFORMATION: occurring amino acid and
      OTHER INFORMATION: analogues thereof.
US-08-584-043A-43
  Query Match
                         36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.5e+02;
           4; Conservative
                              0; Mismatches
 Matches
                                               0; Indels
                                                                0;
                                                                            0;
                                                                    Gaps
           5 KKKK 8
Qy
             1111
           1 KKKK 4
Db
RESULT 11
US-08-584-043A-99
; Sequence 99, Application US/08584043A
; Patent No. 6344436
  GENERAL INFORMATION:
    APPLICANT: Smith, Louis C.
    APPLICANT: Sparrow, James T.
    APPLICANT: Hauer, Jochen
    APPLICANT: Mims, Martha P.
    TITLE OF INVENTION: LIPOPHILIC PEPTIDES FOR
    TITLE OF INVENTION: MACROMOLECULE DELIVERY
    NUMBER OF SEQUENCES: 139
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Lyon & Lyon
      STREET: 633 West Fifth Street
      STREET: Suite 4700
      CITY: Los Angeles
      STATE: California
      COUNTRY: U.S.A.
      ZIP: 90071-2066
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
      MEDIUM TYPE: storage
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: IBM P.C. DOS 6.0
      SOFTWARE: Word Perfect 6.1
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/584,043A
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FILING DATE: January 8, 1996
       CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Warburg, Richard J.
       REGISTRATION NUMBER: 32,327
      REFERENCE/DOCKET NUMBER: 217/189
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (213) 489-1600
      TELEFAX: (213) 955-0440
      TELEX: 67-3510
;
   INFORMATION FOR SEQ ID NO: 99:
;
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-584-043A-99
  Query Match
                         36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.5e+02;
 Matches 4; Conservative 0; Mismatches 0; Indels
                                                            0; Gaps
                                                                           0;
           5 KKKK 8
             +1111
           1 KKKK 4
RESULT 12
US-09-082-358B-11
; Sequence 11, Application US/09082358B
; Patent No. 6469153
; GENERAL INFORMATION:
  APPLICANT: Goff, Stephen P.
 APPLICANT: Li, Xingquiang
  TITLE OF INVENTION: EIP-1, EIP-3 GENES, ENVELOPE-INTERACTING PROTEINS,
  TITLE OF INVENTION: EIP-1, and EIP-3
  FILE REFERENCE: 0575/54804
  CURRENT APPLICATION NUMBER: US/09/082,358B
;
; CURRENT FILING DATE: 1998-05-20
 NUMBER OF SEQ ID NOS: 106
 SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 11
   LENGTH: 11
   TYPE: PRT
   ORGANISM: murine
US-09-082-358B-11
 Query Match
                         36.4%; Score 4; DB 4; Length 11;
 Best Local Similarity 100.0%; Pred. No. 3.5e+02;
 Matches
           4; Conservative
                             0; Mismatches 0; Indels
                                                             0; Gaps
                                                                           0;
           5 KKKK 8
Qу
             1111
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RESULT 13
US-09-579-664B-33
; Sequence 33, Application US/09579664B
; Patent No. 6514719
; GENERAL INFORMATION:
; APPLICANT: Immunex Corporation
  APPLICANT: Bird, Timothy A.
  APPLICANT: Virca, G. Duke
  APPLICANT: Martin, Unja
  APPLICANT: Anderson, Dirk M.
   TITLE OF INVENTION: NOVEL MURINE AND HUMAN KINASES
   FILE REFERENCE: 2923-A
   CURRENT APPLICATION NUMBER: US/09/579,664B
;
   CURRENT FILING DATE: 2000-05-26
  NUMBER OF SEQ ID NOS: 36
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 33
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
  OTHER INFORMATION: peptide
US-09-579-664B-33
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.5e+02;
  Matches
            4; Conservative
                              0; Mismatches 0;
                                                      Indels
                                                                 0; Gaps
                                                                             0;
            5 KKKK 8
Qу
              \square
Db
            1 KKKK 4
RESULT 14
PCT-US94-07644A-39
; Sequence 39, Application PC/TUS9407644A
  GENERAL INFORMATION:
     APPLICANT: COR Therapeutics, Inc.
.;
     TITLE OF INVENTION: Platelet Glycoprotein V Gene and Uses
;
     NUMBER OF SEQUENCES: 43
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Townsend and Townsend Khourie and Crew
       STREET: 379 Lytton Avenue
       CITY: Palo Alto
       STATE: California
       COUNTRY: US
       ZIP: 94301
;
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: PCT/US94/07644A
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CLASSIFICATION:
     ATTORNEY/AGENT INFORMATION:
      NAME: Dow, Karen B.
       REGISTRATION NUMBER: 29,684
       REFERENCE/DOCKET NUMBER: 012418-003000
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 326-2400
       TELEFAX: (415) 326-2422
   INFORMATION FOR SEQ ID NO: 39:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: unknown
ï
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    FEATURE:
      NAME/KEY: Peptide
      LOCATION: 1..11
      OTHER INFORMATION: /note= "Amino acid sequence of the
      OTHER INFORMATION: human fibrinogen (Fg) A-alpha 1 chain thrombin
      OTHER INFORMATION: cleavage site."
    FEATURE:
;
      NAME/KEY: Region
;
      LOCATION: 1..2
      OTHER INFORMATION: /note= "Amino acid residues
      OTHER INFORMATION: identical to GPV."
     FEATURE:
      NAME/KEY: Region
      LOCATION: 5
      OTHER INFORMATION: /note= "Amino acid residue
      OTHER INFORMATION: identical to GPV."
    FEATURE:
      NAME/KEY: Region
      LOCATION: 7..9
      OTHER INFORMATION: /note= "Amino acid residues
      OTHER INFORMATION: identical to GPV."
PCT-US94-07644A-39
 Query Match
                         36.4%; Score 4; DB 5; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.5e+02;
 Matches
          4; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
Qy
           1 AEGG 4
             -1
Db
           1 AEGG 4
RESULT 15
5219739-40
; Patent No. 5219739
    APPLICANT: TISCHER, EDMUND G.; ABRAHAM, JUDITH A.; FIDDES,
; JOHN C.; MITCHELL, RICHARD L.
    TITLE OF INVENTION: DNA SEQUENCES ENCODING BVEGF120 AND
; HVEGF 121 AND METHODS FOR THE PRODUCTION OF BOVINE AND HUMAN
; VAASCULAR ENDOTHELIAL CELL GROWTH FACTORS, BVEGF120 AND HVEGF121
    NUMBER OF SEQUENCES: 40
    CURRENT APPLICATION DATA:
```

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APPLICATION NUMBER: US/07/559,041
       FILING DATE: 27-JUL-1990
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 450,883
       FILING DATE: 14-DEC-1989
      APPLICATION NUMBER: 387,545
       FILING DATE: 27-JUL-1989
;SEQ ID NO:40:
      LENGTH: 11
5219739-40
  Query Match
                         36.4%; Score 4; DB 6; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.5e+02;
           4; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
 Matches
                                                                            0;
           1 AEGG 4
Qу
             -1111
           1 AEGG 4
Db
RESULT 16
US-07-664-989B-17
; Sequence 17, Application US/07664989B
; Patent No. 5223409
  GENERAL INFORMATION:
    APPLICANT: Ladner, Robert Charles
    APPLICANT: Guterman, Sonia Kosow
    APPLICANT: Roberts, Bruce Lindsay
    APPLICANT: Markland, William
    APPLICANT: Ley, Arthur Charles
    APPLICANT: Kent, Rachel Baribault
    TITLE OF INVENTION: Directed Evolution of No. 5223409el
    TITLE OF INVENTION: Binding Proteins
    NUMBER OF SEQUENCES: 121
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Browdy and Neimark
      STREET: 419 Seventh Street, N.W.
      STREET: Suite 300
      CITY: Washington,
      STATE: DC
      COUNTRY: USA
;
      ZIP: 20004
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: WORDPERFECT 4.2
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/664,989B
      FILING DATE: 19910301
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/US89/03731
      FILING DATE: 01-SEP-1989
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/487,063
      FILING DATE: 02-MAR-1990
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PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/240,160
       FILING DATE: 02-SEP-1988
    ATTORNEY/AGENT INFORMATION:
      NAME: Cooper, Iver P.
       REGISTRATION NUMBER: 28005
      REFERENCE/DOCKET NUMBER: LADNER 7
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-628-5197
       TELEFAX: 202-737-3528
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-07-664-989B-17
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
  Matches
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
Qу
           1 AEG 3
             -111
Db
           9 AEG 11
RESULT 17
US-07-718-274A-31
; Sequence 31, Application US/07718274A
; Patent No. 5284756
  GENERAL INFORMATION:
    APPLICANT: Grinna, Lynn
    APPLICANT: Parsons, Thomas F.
    APPLICANT: Theofan, Georgia
    TITLE OF INVENTION: Osteogenic Factor
    NUMBER OF SEQUENCES: 63
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
      ADDRESSEE: Bicknell
      STREET: Two First National Plaza, 20 South Clark
      STREET: Street
      CITY: Chicago
      STATE: Illinois
      COUNTRY: USA
      ZIP: 60603
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/718,274A
      FILING DATE: 19910620
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/415,555
```

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FILING DATE: 04-OCT-1989
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/256,034
      FILING DATE: 11-OCT-1988
    ATTORNEY/AGENT INFORMATION:
      NAME: Sharp, Jeffrey S.
      REGISTRATION NUMBER: 31,879
      REFERENCE/DOCKET NUMBER: 27129/9430
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (312) 346-5750
      TELEFAX: (312) 984-9740
;
      TELEX: 25-3856
  INFORMATION FOR SEQ ID NO: 31:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-07-718-274A-31
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
 Matches
                                                                           0;
           3 GGK 5
Qу
             +111
           3 GGK 5
Db
RESULT 18
US-08-029-333-4
; Sequence 4, Application US/08029333
; Patent No. 5399667
  GENERAL INFORMATION:
    APPLICANT: Frazier, William A.
    APPLICANT: Kosfeld, Minh D.
    TITLE OF INVENTION: Thrombospondin Receptor Binding Peptides
    NUMBER OF SEQUENCES: 47
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Scott J. Meyer, Monsanto Co., A3SG
      STREET: 800 N. Lindbergh Blvd.
      CITY: St. Louis
      STATE: Missouri
      COUNTRY: USA
      ZIP: 63167
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
   CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/029,333
      FILING DATE: 19930305
      CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
     NAME: Meyer, Scott J.
      REGISTRATION NUMBER: 25,275
```

```
REFERENCE/DOCKET NUMBER: 07-24 (982) A
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (314)694-3117
       TELEFAX: (314)694-5435
   INFORMATION FOR SEQ ID NO: 4:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: AMINO ACID
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-029-333-4
                          27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
  Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
            4 GKK 6
Qy
              \perp
Db
            9 GKK 11
RESULT 19
US-08-029-333-30
; Sequence 30, Application US/08029333
; Patent No. 5399667
   GENERAL INFORMATION:
     APPLICANT: Frazier, William A.
     APPLICANT: Kosfeld, Minh D.
    TITLE OF INVENTION: Thrombospondin Receptor Binding Peptides NUMBER OF SEQUENCES: 47
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Scott J. Meyer, Monsanto Co., A3SG
       STREET: 800 N. Lindbergh Blvd.
       CITY: St. Louis
       STATE: Missouri
;
       COUNTRY: USA
;
       ZIP: 63167
     COMPUTER READABLE FORM:
;
       MEDIUM TYPE: Floppy disk
;
       COMPUTER: IBM PC compatible
;
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/029,333
       FILING DATE: 19930305
       CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
       NAME: Meyer, Scott J.
;
       REGISTRATION NUMBER: 25,275
       REFERENCE/DOCKET NUMBER: 07-24(982)A
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (314)694-3117
;
       TELEFAX: (314)694-5435
   INFORMATION FOR SEQ ID NO: 30:
     SEQUENCE CHARACTERISTICS:
;
       LENGTH: 11 amino acids
;
       TYPE: AMINO ACID
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TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-029-333-30
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
             3; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                             0;
                                                              0; Gaps
            4 GKK 6
Qу
              111
            9 GKK 11
RESULT 20
US-08-029-333-32
; Sequence 32, Application US/08029333
; Patent No. 5399667
   GENERAL INFORMATION:
     APPLICANT: Frazier, William A.
     APPLICANT: Kosfeld, Minh D.
     TITLE OF INVENTION: Thrombospondin Receptor Binding Peptides NUMBER OF SEQUENCES: 47
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Scott J. Meyer, Monsanto Co., A3SG
       STREET: 800 N. Lindbergh Blvd.
       CITY: St. Louis
       STATE: Missouri
       COUNTRY: USA
       ZIP: 63167
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/029,333
       FILING DATE: 19930305
       CLASSIFICATION: 530
     ATTORNEY/AGENT INFORMATION:
;
       NAME: Meyer, Scott J.
       REGISTRATION NUMBER: 25,275
;
       REFERENCE/DOCKET NUMBER: 07-24(982)A
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (314)694-3117
       TELEFAX: (314)694-5435
   INFORMATION FOR SEQ ID NO: 32:
;
    SEQUENCE CHARACTERISTICS:
;
       LENGTH: 11 amino acids
       TYPE: AMINO ACID
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-029-333-32
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity
                         100.0%; Pred. No. 3.4e+03;
 Matches
            3; Conservative
                              0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                            0;
```

```
Qу
            4 GKK 6
             111
            9 GKK 11
Db
RESULT 21
US-08-029-333-33
; Sequence 33, Application US/08029333
; Patent No. 5399667
   GENERAL INFORMATION:
     APPLICANT: Frazier, William A.
     APPLICANT: Kosfeld, Minh D.
     TITLE OF INVENTION: Thrombospondin Receptor Binding Peptides NUMBER OF SEQUENCES: 47
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Scott J. Meyer, Monsanto Co., A3SG
       STREET: 800 N. Lindbergh Blvd.
       CITY: St. Louis
       STATE: Missouri
       COUNTRY: USA
       ZIP: 63167
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/029,333
       FILING DATE: 19930305
       CLASSIFICATION: 530
     ATTORNEY/AGENT INFORMATION:
       NAME: Meyer, Scott J.
       REGISTRATION NUMBER: 25,275
       REFERENCE/DOCKET NUMBER: 07-24(982)A
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (314) 694-3117
       TELEFAX: (314)694-5435
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
;
       TYPE: AMINO ACID
;
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-029-333-33
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
                          100.0%; Pred. No. 3.4e+03;
  Best Local Similarity
  Matches
             3; Conservative 0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                              0:
Qу
            4 GKK 6
              \mathbf{I}
            9 GKK 11
RESULT 22
US-08-029-333-46
; Sequence 46, Application US/08029333
```

```
; Patent No. 5399667
  GENERAL INFORMATION:
    APPLICANT: Frazier, William A.
    APPLICANT: Kosfeld, Minh D.
    TITLE OF INVENTION: Thrombospondin Receptor Binding Peptides
    NUMBER OF SEQUENCES: 47
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Scott J. Meyer, Monsanto Co., A3SG
      STREET: 800 N. Lindbergh Blvd.
      CITY: St. Louis
      STATE: Missouri
      COUNTRY: USA
      ZIP: 63167
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/029,333
      FILING DATE: 19930305
      CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
     NAME: Meyer, Scott J.
      REGISTRATION NUMBER: 25,275
      REFERENCE/DOCKET NUMBER: 07-24(982)A
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (314)694-3117
      TELEFAX: (314)694-5435
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-029-333-46
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 3.4e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
           4 GKK 6
Qy
             -111
Db
           9 GKK 11
RESULT 23
US-08-149-106-31
; Sequence 31, Application US/08149106
; Patent No. 5411941
  GENERAL INFORMATION:
    APPLICANT: Grinna, Lynn
    APPLICANT: Parsons, Thomas F.
    APPLICANT: Theofan, Georgia
    TITLE OF INVENTION: Osteogenic Factor
    NUMBER OF SEQUENCES: 63
    CORRESPONDENCE ADDRESS:
```

```
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
       ADDRESSEE: Bicknell
       STREET: Two First National Plaza, 20 South Clark
       STREET: Street
      CITY: Chicago
      STATE: Illinois
      COUNTRY: USA
       ZIP: 60603
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/149,106
      FILING DATE:
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/415,555
      FILING DATE: 04-OCT-1989
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/256,034
;
      FILING DATE: 11-OCT-1988
;
    ATTORNEY/AGENT INFORMATION:
      NAME: Sharp, Jeffrey S.
      REGISTRATION NUMBER: 31,879
      REFERENCE/DOCKET NUMBER: 27129/9430
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (312) 346-5750
      TELEFAX: (312) 984-9740
      TELEX: 25-3856
  INFORMATION FOR SEQ ID NO:
;
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-149-106-31
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                           0;
                                                               0; Gaps
Qу
           3 GGK 5
             3 GGK 5
Db
RESULT 24
US-07-603-675-8
; Sequence 8, Application US/07603675
; Patent No. 5416006
  GENERAL INFORMATION:
    APPLICANT: Blasi, Francesco
    APPLICANT: Stoppelli, Maria P
    APPLICANT: Mastronicola, Maria R
    APPLICANT: Welinder, Karen G
```

```
APPLICANT: Correas, Isabel
    TITLE OF INVENTION: MODIFICATION OF PLASMINOGEN ACTIVATORS
    NUMBER OF SEQUENCES: 8
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: COOPER & DUNHAM
      STREET: 30 ROCKEFELLER PLAZA
      CITY: NEW YORK
      STATE: NEW YORK
      COUNTRY: U.S.A.
      ZIP: 10112
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.24
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/603,675
      FILING DATE: 19911218
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/DK90/00096
      FILING DATE: 11-APR-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: White, John P
      REGISTRATION NUMBER: 28,678
      REFERENCE/DOCKET NUMBER: 38154
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 977-9550
      TELEFAX: (212) 644-0525
      TELEX: (212) 422523 COOP UI
   INFORMATION FOR SEQ ID NO: 8:
;
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
      TOPOLOGY:
                linear
    MOLECULE TYPE: peptide
    HYPOTHETICAL: N
    FRAGMENT TYPE: internal
US-07-603-675-8
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 3.4e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                    Gaps
                                                                            0;
Qу
           4 GKK 6
             \perp
Db
           2 GKK 4
RESULT 25
US-08-127-278-6
; Sequence 6, Application US/08127278
; Patent No. 5498697
  GENERAL INFORMATION:
    APPLICANT: IWAKI, Kanso
;
    APPLICANT: OHTA, Tsunetaka
    APPLICANT: KURIOTO, Masahi
```

```
TITLE OF INVENTION: PROTEIN, DNA CODING SAID PROTEIN, AND
     TITLE OF INVENTION: PREPARATION OF SAID PROTEIN
    NUMBER OF SEQUENCES: 11
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: BROWDY AND NEIMARK
       STREET: 419 Seventh Street, N.W., Suite 300
       CITY: Washington
       STATE: D.C.
      COUNTRY: USA
       ZIP: 20004
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/127,278
       FILING DATE: 27-SEP-1993
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP 281136/1992
      FILING DATE: 28-SEP-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: NEIMARK, Sheridan
      REGISTRATION NUMBER: 20,520
      REFERENCE/DOCKET NUMBER: IWAKI=2
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-628-5197
       TELEFAX: 202-737-3528
      TELEX: 248633
  INFORMATION FOR SEQ ID NO: 6:
;
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-127-278-6
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 3.4e+03;
           3; Conservative
                              0; Mismatches 0; Indels 0; Gaps
                                                                             0;
           2 EGG 4
Qy
             111
            2 EGG 4
RESULT 26
US-08-298-021-31
; Sequence 31, Application US/08298021
; Patent No. 5508263
  GENERAL INFORMATION:
    APPLICANT: Grinna, Lynn
    APPLICANT: Parsons, Thomas F.
    APPLICANT:
    APPLICANT: Theofan, Georgia
TITLE OF INVENTION: Heterodimeric Osteogenic Factor
    NUMBER OF SEQUENCES: 63
```

```
CORRESPONDENCE ADDRESS:
       ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
       STREET: 6300 Sears Tower, 233 South Wacker Drive
       CITY: Chicago
       STATE: Illinois
       COUNTRY: United States of America
       ZIP: 60606-64023
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/298,021
       FILING DATE:
       CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/149,106
       FILING DATE: 11-OCT-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/718,274
       FILING DATE: 20-JUN-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/415,555
      FILING DATE: 04-OCT-1989
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/256,034
       FILING DATE: 11-OCT-1988
    ATTORNEY/AGENT INFORMATION:
      NAME: Sharp, Jeffrey S.
      REGISTRATION NUMBER: 31,879
      REFERENCE/DOCKET NUMBER: 27129/32196
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 312/474-6300
      TELEFAX: 312/474-0448
      TELEX: 25-3856
   INFORMATION FOR SEQ ID NO: 31:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-298-021-31
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
 Matches
           3; Conservative 0; Mismatches 0;
                                                     Indels
                                                                0; Gaps
           3 GGK 5
Qу
             3 GGK 5
Db
RESULT 27
US-08-211-942-18
; Sequence 18, Application US/08211942
; Patent No. 5523287
```

```
GENERAL INFORMATION:
    APPLICANT: Friedrich, Thomas
    APPLICANT: Bialojan, Siegfried
     APPLICANT: Kroeger, Burkhard
    APPLICANT: Kuenast, Christoph
    TITLE OF INVENTION: No. 5523287el thrombin-inhibitory protein from
assassin
    TITLE OF INVENTION: bugs.
;
    NUMBER OF SEQUENCES: 22
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: Keil & Weinkauf
      STREET: 1101 Connecticut Avenue
      CITY: Washington
ï
      STATE: D.C.
;
      COUNTRY: USA
;
      ZIP: 20036
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette, 5.25 inch, 360 Kb storage
      COMPUTER: IBM AT-compatible, 80486 processor
      OPERATING SYSTEM: MS-DOS version 6.0
       SOFTWARE: WordPerfect version 5.1
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/211,942
;
      FILING DATE:
      CLASSIFICATION: 435
      CLASSIFICATION: C07K 13/00
      CLASSIFICATION: A61K 37/64
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/EP92/02450
      FILING DATE: 27-OCT-1992
  INFORMATION FOR SEQ ID NO: 18:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
US-08-211-942-18
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 3.4e+03;
          3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0:
           2 EGG 4
Qу
             -111
           1 EGG 3
RESULT 28
US-08-178-570-75
; Sequence 75, Application US/08178570
; Patent No. 5532167
  GENERAL INFORMATION:
    APPLICANT: Lewis C. Cantley
    APPLICANT: Zhou Song yang
    TITLE OF INVENTION: Substrate Specificity of Protein Kinases
    NUMBER OF SEQUENCES: 77
    CORRESPONDENCE ADDRESS:
     ADDRESSEE: LAHIVE & COCKFIELD
```

```
STREET: 60 STATE STREET, suite 510
       CITY: BOSTON
       STATE: MASSACHUSETTS
       COUNTRY: USA
       ZIP: 02109-1875
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: ASCII text
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/178,570
;
       FILING DATE: JANUARY 7, 1994
       CLASSIFICATION: 435
;
     ATTORNEY/AGENT INFORMATION:
;
      NAME: DeConti, Giulio A., Jr.
;
       REGISTRATION NUMBER: 31,503
       REFERENCE/DOCKET NUMBER: BBI-004
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (617) 227-7400
       TELEFAX: (617) 227-5941
   INFORMATION FOR SEQ ID NO: 75:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
     MOLECULE TYPE: peptide
     FRAGMENT TYPE: internal
US-08-178-570-75
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity
                         100.0%; Pred. No. 3.4e+03;
           3; Conservative
  Matches
                              0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           5 KKK 7
Qу
             111
           8 KKK 10
RESULT 29
US-08-146-152-5
; Sequence 5, Application US/08146152
; Patent No. 5580956
   GENERAL INFORMATION:
    APPLICANT: SAITO, Hiromitsu
    APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
;
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
;
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
      STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
      CITY: Washington,
      STATE: D.C.
      COUNTRY: U.S.A.
      ZIP: 20006
```

```
COMPUTER READABLE FORM:
       MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
       COMPUTER: NEC PC-9801 Seriese
       OPERATING SYSTEM: MS-DOS Ver3.30 or Later
       SOFTWARE:
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/146,152
       FILING DATE: 10-NOV-1993
       CLASSIFICATION: 530
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: JP52394/92
       FILING DATE: 11-MAR-1992
    ATTORNEY/AGENT INFORMATION:
       NAME: Terry, David T.
       REGISTRATION NUMBER: 20178
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 202-828-0300
       TELEFAX: 202-828-0380
       TELEX: 440280
   INFORMATION FOR SEQ ID NO: 5:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-146-152-5
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+03;
 Matches
            3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            8 KMR 10
Qу
              \mathbf{1}\mathbf{1}\mathbf{1}
Db
            4 KMR 6
RESULT 30
US-08-146-152-11
; Sequence 11, Application US/08146152
; Patent No. 5580956
  GENERAL INFORMATION:
    APPLICANT: SAITO, Hiromitsu
;
    APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
      STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
      CITY: Washington,
      STATE: D.C.
      COUNTRY: U.S.A.
      ZIP: 20006
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
      COMPUTER: NEC PC-9801 Seriese
```

```
OPERATING SYSTEM: MS-DOS Ver3.30 or Later
       SOFTWARE:
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/146,152
      FILING DATE: 10-NOV-1993
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP52394/92
      FILING DATE: 11-MAR-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Terry, David T.
      REGISTRATION NUMBER: 20178
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-828-0300
      TELEFAX: 202-828-0380
      TELEX: 440280
   INFORMATION FOR SEQ ID NO: 11:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
;
    MOLECULE TYPE: peptide
;
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 1
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 1 represents N-(n-Butyryl)-
      OTHER INFORMATION: L-Leucine.
      NAME/KEY: Modified-site
      LOCATION: 11
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 11 represents L-Valine
      OTHER INFORMATION: amide.
US-08-146-152-11
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                             0; Gaps
                                                                           0;
           8 KMR 10
Qу
             111
Db
           4 KMR 6
RESULT 31
US-08-146-152-12
; Sequence 12, Application US/08146152
; Patent No. 5580956
  GENERAL INFORMATION:
    APPLICANT: SAITO, Hiromitsu
    APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
;
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
```

```
STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
       CITY: Washington,
       STATE: D.C.
       COUNTRY: U.S.A.
       ZIP: 20006
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
;
       COMPUTER: NEC PC-9801 Seriese
;
       OPERATING SYSTEM: MS-DOS Ver3.30 or Later
       SOFTWARE:
    CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/146,152
       FILING DATE: 10-NOV-1993
       CLASSIFICATION: 530
;
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: JP52394/92
;
       FILING DATE: 11-MAR-1992
    ATTORNEY/AGENT INFORMATION:
;
      NAME: Terry, David T.
;
       REGISTRATION NUMBER: 20178
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 202-828-0300
       TELEFAX: 202-828-0380
;
       TELEX: 440280
;
   INFORMATION FOR SEQ ID NO: 12:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
;
       TYPE: amino acid
;
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
;
    FEATURE:
;
      NAME/KEY: Modified-site
;
      LOCATION:
;
                 1
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 1 represents N-Coumalyl-L-
      OTHER INFORMATION: Leucine.
      NAME/KEY: Modified-site
      LOCATION:
                 11
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 11 represents L-Valine
       OTHER INFORMATION: amide.
US-08-146-152-12
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity
                         100.0%; Pred. No. 3.4e+03;
           3; Conservative
                               0; Mismatches 0; Indels
 Matches
                                                                0; Gaps
                                                                            0;
           8 KMR 10
QУ
              IIII
Db
           4 KMR 6
RESULT 32
US-08-146-152-13
; Sequence 13, Application US/08146152
; Patent No. 5580956
; GENERAL INFORMATION:
```

```
APPLICANT: SAITO, Hiromitsu
    APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
       ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
      STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
      CITY: Washington,
      STATE: D.C.
      COUNTRY: U.S.A.
      ZIP: 20006
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
      COMPUTER: NEC PC-9801 Seriese
      OPERATING SYSTEM: MS-DOS Ver3.30 or Later
      SOFTWARE:
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/146,152
      FILING DATE: 10-NOV-1993
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP52394/92
      FILING DATE: 11-MAR-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Terry, David T.
      REGISTRATION NUMBER: 20178
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-828-0300
       TELEFAX: 202-828-0380
      TELEX: 440280
   INFORMATION FOR SEQ ID NO: 13:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
;
;
      NAME/KEY: Modified-site
      LOCATION: 1
;
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 1 represents N-(2,3-
      OTHER INFORMATION: Dihydroxybenzoyl)-L-Leucine.
      NAME/KEY: Modified-site
      LOCATION: 11
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 11 represents L-Valine
      OTHER INFORMATION: amide.
US-08-146-152-13
                         27.3%; Score 3; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 3.4e+03;
 Matches
            3; Conservative
                               0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
```

```
RESULT 33
US-08-146-152-14
; Sequence 14, Application US/08146152
; Patent No. 5580956
   GENERAL INFORMATION:
     APPLICANT: SAITO, Hiromitsu
     APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
     TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
       STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
      CITY: Washington,
       STATE: D.C.
      COUNTRY: U.S.A.
       ZIP: 20006
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
      COMPUTER: NEC PC-9801 Seriese
      OPERATING SYSTEM: MS-DOS Ver3.30 or Later
       SOFTWARE:
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/146,152
       FILING DATE: 10-NOV-1993
       CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP52394/92
      FILING DATE: 11-MAR-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Terry, David T.
       REGISTRATION NUMBER: 20178
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 202-828-0300
       TELEFAX: 202-828-0380
       TELEX: 440280
   INFORMATION FOR SEQ ID NO: 14:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
;
      TYPE: amino acid
;
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
;
      NAME/KEY: Modified-site
;
      LOCATION: 1
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 1 represents N-(2,4-
      OTHER INFORMATION: Dihydroxybenzoyl)-L-Leucine.
      NAME/KEY:
                 Modified-site
      LOCATION:
                 11
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 11 represents L-Valine
      OTHER INFORMATION:
                          amide.
```

```
Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
  Matches
            3; Conservative
                               0; Mismatches
                                                                0; Gaps
                                                  0; Indels
                                                                            0;
            8 KMR 10
Qу
              \Pi\Pi
Db
            4 KMR 6
RESULT 34
US-08-146-152-15
; Sequence 15, Application US/08146152
; Patent No. 5580956
  GENERAL INFORMATION:
    APPLICANT: SAITO, Hiromitsu
    APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
       STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
      CITY: Washington,
       STATE: D.C.
      COUNTRY: U.S.A.
      ZIP: 20006
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
      COMPUTER: NEC PC-9801 Seriese
      OPERATING SYSTEM: MS-DOS Ver3.30 or Later
       SOFTWARE:
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/146,152
      FILING DATE: 10-NOV-1993
;
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: JP52394/92
;
       FILING DATE: 11-MAR-1992
;
    ATTORNEY/AGENT INFORMATION:
      NAME: Terry, David T.
      REGISTRATION NUMBER: 20178
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-828-0300
      TELEFAX: 202-828-0380
      TELEX: 440280
  INFORMATION FOR SEQ ID NO: 15:
    SEQUENCE CHARACTERISTICS:
      LENGTH:
               11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
                1
```

```
IDENTIFICATION METHOD: by experiment
       OTHER INFORMATION: Xaa in Location 1 represents N-(2,5-
       OTHER INFORMATION: Dihydroxybenzoyl)-L-Leucine.
      NAME/KEY: Modified-site
      LOCATION:
                 11
      IDENTIFICATION METHOD: by experiment
       OTHER INFORMATION: Xaa in Location 11 represents L-Valine
      OTHER INFORMATION: amide.
US-08-146-152-15
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
           3; Conservative 0; Mismatches 0; Indels
  Matches
                                                                0; Gaps
                                                                            0;
            8 KMR 10
Qу
             +111
Db
            4 KMR 6
RESULT 35
US-08-146-152-16
; Sequence 16, Application US/08146152
; Patent No. 5580956
   GENERAL INFORMATION:
    APPLICANT: SAITO, Hiromitsu
    APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
;
   CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
;
      STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
      CITY: Washington,
      STATE: D.C.
      COUNTRY: U.S.A.
      ZIP: 20006
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
;
      COMPUTER: NEC PC-9801 Seriese
;
      OPERATING SYSTEM: MS-DOS Ver3.30 or Later
      SOFTWARE:
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/146,152
      FILING DATE: 10-NOV-1993
      CLASSIFICATION: 530
     PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: JP52394/92
;
      FILING DATE: 11-MAR-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Terry, David T.
      REGISTRATION NUMBER: 20178
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-828-0300
      TELEFAX: 202-828-0380
;
      TELEX: 440280
  INFORMATION FOR SEQ ID NO: 16:
```

```
SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
;
     FEATURE:
;
      NAME/KEY: Modified-site
;
      LOCATION:
                 1
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 1 represents N-(3-
      OTHER INFORMATION: Cyclohexylpropionyl) -L-Leucine.
      NAME/KEY: Modified-site
                 11
      LOCATION:
       IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 11 represents L-Valine
      OTHER INFORMATION: amide.
US-08-146-152-16
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 3.4e+03;
 Matches
            3; Conservative
                               0; Mismatches
                                                0;
                                                     Indels
                                                                0; Gaps
                                                                            0;
           8 KMR 10
Qу
             \perp
Db
            4 KMR 6
RESULT 36
US-08-146-152-17
; Sequence 17, Application US/08146152
; Patent No. 5580956
  GENERAL INFORMATION:
    APPLICANT: SAITO, Hiromitsu
    APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
;
      STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
      CITY: Washington,
      STATE: D.C.
      COUNTRY: U.S.A.
      ZIP: 20006
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
      COMPUTER: NEC PC-9801 Seriese
      OPERATING SYSTEM: MS-DOS Ver3.30 or Later
      SOFTWARE:
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/146,152
      FILING DATE: 10-NOV-1993
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP52394/92
;
      FILING DATE: 11-MAR-1992
```

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ATTORNEY/AGENT INFORMATION:
      NAME: Terry, David T.
       REGISTRATION NUMBER: 20178
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-828-0300
      TELEFAX: 202-828-0380
      TELEX: 440280
   INFORMATION FOR SEQ ID NO: 17:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
;
      TYPE: amino acid
;
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
;
    FEATURE:
;
      NAME/KEY: Modified-site
      LOCATION: 1
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 1 represents N-
      OTHER INFORMATION: Cyclopentylacetyl-L-Leucine.
      NAME/KEY: Modified-site
      LOCATION:
                11
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 11 represents L-Valine
      OTHER INFORMATION: amide.
US-08-146-152-17
                         27.3%; Score 3; DB 1; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
                               0; Mismatches 0; Indels
 Matches
           3; Conservative
                                                               0; Gaps
                                                                            0;
           8 KMR 10
Qу
             +111
Db
           4 KMR 6
RESULT 37
US-08-146-152-18
; Sequence 18, Application US/08146152
; Patent No. 5580956
  GENERAL INFORMATION:
    APPLICANT: SAITO, Hiromitsu
    APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
;
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
      STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
      CITY: Washington,
      STATE: D.C.
      COUNTRY: U.S.A.
      ZIP: 20006
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
      COMPUTER: NEC PC-9801 Seriese
      OPERATING SYSTEM: MS-DOS Ver3.30 or Later
```

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SOFTWARE:
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/146,152
       FILING DATE: 10-NOV-1993
       CLASSIFICATION: 530
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: JP52394/92
       FILING DATE: 11-MAR-1992
     ATTORNEY/AGENT INFORMATION:
       NAME: Terry, David T.
       REGISTRATION NUMBER: 20178
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 202-828-0300
       TELEFAX: 202-828-0380
       TELEX: 440280
   INFORMATION FOR SEQ ID NO: 18:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
;
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
;
     FEATURE:
      NAME/KEY: Modified-site
;
      LOCATION: 1
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 1 represents N-Propionyl-L-
      OTHER INFORMATION: Leucine.
      NAME/KEY: Modified-site
      LOCATION: 11
      IDENTIFICATION METHOD: by experiment
       OTHER INFORMATION: Xaa in Location 11 represents L-Valine
      OTHER INFORMATION: amide.
US-08-146-152-18
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
                              0; Mismatches 0; Indels 0; Gaps
  Matches
            3; Conservative
                                                                            0;
           8 KMR 10
Qу
             -1111
           4 KMR 6
RESULT 38
US-08-146-152-19
; Sequence 19, Application US/08146152
; Patent No. 5580956
  GENERAL INFORMATION:
    APPLICANT: SAITO, Hiromitsu
    APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
      STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
```

```
CITY: Washington,
       STATE: D.C.
      COUNTRY: U.S.A.
       ZIP: 20006
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
      COMPUTER: NEC PC-9801 Seriese
      OPERATING SYSTEM: MS-DOS Ver3.30 or Later
      SOFTWARE:
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/146,152
      FILING DATE: 10-NOV-1993
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP52394/92
      FILING DATE: 11-MAR-1992
    ATTORNEY/AGENT INFORMATION:
     NAME: Terry, David T.
      REGISTRATION NUMBER: 20178
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-828-0300
      TELEFAX: 202-828-0380
      TELEX: 440280
   INFORMATION FOR SEQ ID NO: 19:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 1
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 1 represents N-Isobutyryl-
      OTHER INFORMATION: L-Leucine.
      NAME/KEY: Modified-site
      LOCATION:
                 11
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 11 represents L-Valine
      OTHER INFORMATION: amide.
US-08-146-152-19
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
Qу
           8 KMR 10
             111
Db
           4 KMR 6
RESULT 39
US-08-146-152-20
; Sequence 20, Application US/08146152
; Patent No. 5580956
; GENERAL INFORMATION:
    APPLICANT: SAITO, Hiromitsu
```

```
APPLICANT: ISHIKAWA, Genkichi
     APPLICANT: YAMASAKI, Motoo
     APPLICANT: HONMA, Yoshimi
     TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
     NUMBER OF SEQUENCES: 28
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
       STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
       CITY: Washington,
       STATE: D.C.
       COUNTRY: U.S.A.
       ZIP: 20006
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
;
       COMPUTER: NEC PC-9801 Seriese
;
       OPERATING SYSTEM: MS-DOS Ver3.30 or Later
;
       SOFTWARE:
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/146,152
       FILING DATE: 10-NOV-1993
;
      CLASSIFICATION: 530
     PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: JP52394/92
       FILING DATE: 11-MAR-1992
;
     ATTORNEY/AGENT INFORMATION:
;
     NAME: Terry, David T.
       REGISTRATION NUMBER: 20178
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 202-828-0300
       TELEFAX: 202-828-0380
       TELEX: 440280
   INFORMATION FOR SEQ ID NO: 20:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 1 represents N-(2-Ethyl-n-OTHER INFORMATION: butyryl)-L-Leucine.
;
      NAME/KEY: Modified-site
      LOCATION:
                 11
       IDENTIFICATION METHOD: by experiment
       OTHER INFORMATION: Xaa in Location 11 represents L-Valine
      OTHER INFORMATION: amide.
US-08-146-152-20
                          27.3%; Score 3; DB 1; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
            3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                              0;
            8 KMR 10
Qу
              +111
            4 KMR 6
```

```
RESULT 40
US-08-146-152-21
; Sequence 21, Application US/08146152
; Patent No. 5580956
   GENERAL INFORMATION:
     APPLICANT: SAITO, Hiromitsu
     APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
     APPLICANT: HONMA, Yoshimi
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
       STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
       CITY: Washington,
       STATE: D.C.
       COUNTRY: U.S.A.
      ZIP: 20006
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
       COMPUTER: NEC PC-9801 Seriese
       OPERATING SYSTEM: MS-DOS Ver3.30 or Later
       SOFTWARE:
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/146,152
       FILING DATE: 10-NOV-1993
       CLASSIFICATION:
                        530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP52394/92
       FILING DATE: 11-MAR-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Terry, David T.
       REGISTRATION NUMBER: 20178
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 202-828-0300
       TELEFAX: 202-828-0380
       TELEX: 440280
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      NAME/KEY:
                 Modified-site
      LOCATION:
                 1
       IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 1 represents N-(n-Caprylyl)-
      OTHER INFORMATION: L-Leucine.
      NAME/KEY:
                 Modified-site
      LOCATION:
                 11
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 11 represents L-Valine
      OTHER INFORMATION: amide.
US-08-146-152-21
```

```
Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 3.4e+03;
                              0; Mismatches
 Matches
            3; Conservative
                                                  0; Indels
                                                                0;
                                                                            0;
                                                                    Gaps
            8 KMR 10
Qу
             111
Db
            4 KMR 6
RESULT 41
US-08-146-152-22
; Sequence 22, Application US/08146152
 Patent No. 5580956
  GENERAL INFORMATION:
    APPLICANT: SAITO, Hiromitsu
    APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
      STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
      CITY: Washington,
      STATE: D.C.
      COUNTRY: U.S.A.
      ZIP: 20006
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
      COMPUTER: NEC PC-9801 Seriese
      OPERATING SYSTEM: MS-DOS Ver3.30 or Later
      SOFTWARE:
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/146,152
      FILING DATE: 10-NOV-1993
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: JP52394/92
;
      FILING DATE: 11-MAR-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Terry, David T.
;
       REGISTRATION NUMBER: 20178
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: 202-828-0300
       TELEFAX: 202-828-0380
       TELEX: 440280
   INFORMATION FOR SEQ ID NO:
                              22:
     SEQUENCE CHARACTERISTICS:
      LENGTH:
               11 amino acids
       TYPE:
             amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
                 1
      IDENTIFICATION METHOD: by experiment
```

```
OTHER INFORMATION: Xaa in Location 1 represents N-Succinyl-L-
      OTHER INFORMATION: Leucine.
      NAME/KEY: Modified-site
      LOCATION:
                 11
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 11 represents L-Valine
      OTHER INFORMATION: amide.
US-08-146-152-22
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
           3; Conservative 0; Mismatches 0; Indels
 Matches
                                                                0; Gaps
                                                                            0;
           8 KMR 10
Qy
             -111
           4 KMR 6
Db
RESULT 42
US-08-146-152-23
; Sequence 23, Application US/08146152
; Patent No. 5580956
  GENERAL INFORMATION:
;
    APPLICANT: SAITO, Hiromitsu
    APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
;
      STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
;
      CITY: Washington,
      STATE: D.C.
      COUNTRY: U.S.A.
      ZIP: 20006
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
      COMPUTER: NEC PC-9801 Seriese
;
      OPERATING SYSTEM: MS-DOS Ver3.30 or Later
;
      SOFTWARE:
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/146,152
      FILING DATE: 10-NOV-1993
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP52394/92
      FILING DATE: 11-MAR-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Terry, David T.
      REGISTRATION NUMBER: 20178
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-828-0300
      TELEFAX: 202-828-0380
      TELEX: 440280
  INFORMATION FOR SEQ ID NO: 23:
    SEQUENCE CHARACTERISTICS:
```

```
LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
     FEATURE:
       NAME/KEY: Modified-site
;
      LOCATION: 1
;
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 1 represents N-(3-
      OTHER INFORMATION: Cyclopentylpropionyl)-L-Leucine.
      NAME/KEY: Modified-site
      LOCATION:
                 11
       IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 11 represents L-Valine
      OTHER INFORMATION: amide.
US-08-146-152-23
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 3.4e+03;
 Matches
            3; Conservative
                               0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
Qу
           8 KMR 10
             111
Db
            4 KMR 6
RESULT 43
US-08-146-152-24
; Sequence 24, Application US/08146152
; Patent No. 5580956
  GENERAL INFORMATION:
    APPLICANT: SAITO, Hiromitsu
    APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
;
      STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
      CITY: Washington,
      STATE: D.C.
      COUNTRY: U.S.A.
      ZIP: 20006
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
      COMPUTER: NEC PC-9801 Seriese
      OPERATING SYSTEM: MS-DOS Ver3.30 or Later
      SOFTWARE:
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/146,152
      FILING DATE: 10-NOV-1993
      CLASSIFICATION:
                       530
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP52394/92
       FILING DATE: 11-MAR-1992
    ATTORNEY/AGENT INFORMATION:
```

```
NAME: Terry, David T.
       REGISTRATION NUMBER: 20178
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 202-828-0300
       TELEFAX: 202-828-0380
       TELEX: 440280
   INFORMATION FOR SEQ ID NO: 24:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
; .
       TYPE: amino acid
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      NAME/KEY: Modified-site
       LOCATION: 1
       IDENTIFICATION METHOD: by experiment
       OTHER INFORMATION: Xaa in Location 1 represents N-
       OTHER INFORMATION: Cyclopropylcarbonyl-L-Leucine.
      NAME/KEY: Modified-site
       LOCATION: 11
       IDENTIFICATION METHOD: by experiment
       OTHER INFORMATION: Xaa in Location 11 represents L-Valine
       OTHER INFORMATION: amide.
US-08-146-152-24
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
  Matches
            3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
            8 KMR 10
Qу
              \perp
Db
            4 KMR 6
RESULT 44
US-08-146-152-25
; Sequence 25, Application US/08146152
; Patent No. 5580956
  GENERAL INFORMATION:
     APPLICANT: SAITO, Hiromitsu
    APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
       ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
;
       STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
;
       CITY: Washington,
       STATE: D.C.
       COUNTRY: U.S.A.
       ZIP: 20006
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
;
       COMPUTER: NEC PC-9801 Seriese
      OPERATING SYSTEM: MS-DOS Ver3.30 or Later
      SOFTWARE:
```

```
CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/146,152
       FILING DATE: 10-NOV-1993
       CLASSIFICATION: 530
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP52394/92
       FILING DATE: 11-MAR-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Terry, David T.
       REGISTRATION NUMBER: 20178
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: 202-828-0300
       TELEFAX: 202-828-0380
      TELEX: 440280
   INFORMATION FOR SEQ ID NO: 25:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
;
    FEATURE:
;
      NAME/KEY: Modified-site
;
      LOCATION: 1
;
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 1 represents N-
      OTHER INFORMATION: Cyclohexylacetyl-L-Leucine.
      NAME/KEY: Modified-site
      LOCATION: 11
      IDENTIFICATION METHOD: by experiment OTHER INFORMATION: Xaa in Location 11 represents L-Varine
      OTHER INFORMATION: amide.
US-08-146-152-25
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
Qу
            8 KMR 10
              +++
Db
            4 KMR 6
RESULT 45
US-08-146-152-26
; Sequence 26, Application US/08146152
; Patent No. 5580956
  GENERAL INFORMATION:
    APPLICANT: SAITO, Hiromitsu
    APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
      STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
      CITY: Washington,
```

```
STATE: D.C.
       COUNTRY: U.S.A.
       ZIP: 20006
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
      COMPUTER: NEC PC-9801 Seriese
      OPERATING SYSTEM: MS-DOS Ver3.30 or Later
      SOFTWARE:
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/146,152
      FILING DATE: 10-NOV-1993
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP52394/92
      FILING DATE: 11-MAR-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Terry, David T.
      REGISTRATION NUMBER: 20178
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-828-0300
       TELEFAX: 202-828-0380
      TELEX: 440280
   INFORMATION FOR SEQ ID NO: 26:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 1 represents
      OTHER INFORMATION: N-Cyclopentylcarbonyl-L-Leucine.
      NAME/KEY: Modified-site
      LOCATION: 11
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 11 represents L-Valine
      OTHER INFORMATION: amide.
US-08-146-152-26
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 3.4e+03;
 Matches
           3; Conservative
                               0; Mismatches
                                                0; Indels
                                                                           0;
                                                               0; Gaps
           8 KMR 10
Qy
             4 KMR 6
RESULT 46
US-08-146-152-27
; Sequence 27, Application US/08146152
; Patent No. 5580956
; GENERAL INFORMATION:
    APPLICANT: SAITO, Hiromitsu
;
    APPLICANT: ISHIKAWA, Genkichi
```

```
APPLICANT: YAMASAKI, Motoo
;
    APPLICANT: HONMA, Yoshimi
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
ï
      STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
      CITY: Washington,
      STATE: D.C.
      COUNTRY: U.S.A.
      ZIP: 20006
;
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
;
      COMPUTER: NEC PC-9801 Seriese
      OPERATING SYSTEM: MS-DOS Ver3.30 or Later
      SOFTWARE:
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/146,152
      FILING DATE: 10-NOV-1993
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP52394/92
;
      FILING DATE: 11-MAR-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Terry, David T.
      REGISTRATION NUMBER: 20178
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-828-0300
      TELEFAX: 202-828-0380
      TELEX: 440280
  INFORMATION FOR SEQ ID NO: 27:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
;
      TYPE: amino acid
;
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
;
      NAME/KEY: Modified-site
;
      LOCATION:
                1
;
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 1 represents N-(n-Hexanoy1)-
      OTHER INFORMATION: L-Leucine.
      NAME/KEY: Modified-site
      LOCATION:
                 11
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 11 represents L-Valine
      OTHER INFORMATION: amide.
US-08-146-152-27
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 3.4e+03;
 Matches
           3; Conservative
                              0; Mismatches 0; Indels 0; Gaps
                                                                            0;
           8 KMR 10
Qy .
             Db
           4 KMR 6
```

```
RESULT 47
US-08-146-152-28
; Sequence 28, Application US/08146152
; Patent No. 5580956
  GENERAL INFORMATION:
    APPLICANT: SAITO, Hiromitsu
    APPLICANT: ISHIKAWA, Genkichi
    APPLICANT: YAMASAKI, Motoo
    APPLICANT: HONMA, Yoshimi
    TITLE OF INVENTION: PHOSPHOLIPASE C-INHIBITING PEPTIDES
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANTONELLI, TERRY, STOUT & KRAUS
      STREET: Suite 600, 1919 Pennsylvania Avenue, N.W.
      CITY: Washington,
      STATE: D.C.
      COUNTRY: U.S.A.
      ZIP: 20006
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette - 3.50 inch, 720 Kb storage
      COMPUTER: NEC PC-9801 Seriese
      OPERATING SYSTEM: MS-DOS Ver3.30 or Later
      SOFTWARE:
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/146,152
      FILING DATE: 10-NOV-1993
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP52394/92
      FILING DATE: 11-MAR-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Terry, David T.
      REGISTRATION NUMBER: 20178
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-828-0300
       TELEFAX: 202-828-0380
;
       TELEX: 440280
  INFORMATION FOR SEQ ID NO: 28:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      TOPOLOGY: linear
;
    MOLECULE TYPE: peptide
    FEATURE:
;
      NAME/KEY: Modified-site
      LOCATION: 1
;
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 1 represents N-(n-No. 5580956anoy1)-
      OTHER INFORMATION: L-Leucine.
      NAME/KEY: Modified-site
      LOCATION:
                 11
      IDENTIFICATION METHOD: by experiment
      OTHER INFORMATION: Xaa in Location 11 represents L-Valine
      OTHER INFORMATION: amide.
US-08-146-152-28
```

```
Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
           8 KMR 10
Qу
              \mathbf{I} + \mathbf{I}
Db
            4 KMR 6
RESULT 48
US-08-555-860-6
; Sequence 6, Application US/08555860
; Patent No. 5585474
; GENERAL INFORMATION:
    APPLICANT: IWAKI, Kanso
     APPLICANT: OHTA, Tsunetaka
    APPLICANT: KURIOTO, Masahi
    TITLE OF INVENTION: PROTEIN, DNA CODING SAID PROTEIN, AND
     TITLE OF INVENTION: PREPARATION OF SAID PROTEIN
    NUMBER OF SEQUENCES: 11
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: BROWDY AND NEIMARK
      STREET: 419 Seventh Street, N.W., Suite 300
      CITY: Washington
      STATE: D.C.
      COUNTRY: USA
      ZIP: 20004
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
;
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/555,860
;
      FILING DATE: 13-NOV-1995
;
      CLASSIFICATION: 530
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/127,278
     FILING DATE: 27-SEP-1993
     APPLICATION NUMBER: JP 281136/1992
      FILING DATE: 28-SEP-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: NEIMARK, Sheridan
      REGISTRATION NUMBER: 20,520
      REFERENCE/DOCKET NUMBER: IWAKI=2
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 202-628-5197
      TELEFAX: 202-737-3528
       TELEX: 248633
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-555-860-6
```

```
Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
                             0; Mismatches 0; Indels
                                                                           0;
 Matches
            3; Conservative
                                                               0; Gaps
           2 EGG 4
Qу
             2 EGG 4
Db
RESULT 49
US-08-347-000-4
; Sequence 4, Application US/08347000
; Patent No. 5627265
  GENERAL INFORMATION:
    APPLICANT: Frazier, William A.
    APPLICANT: Gao, Ai-Guo
    TITLE OF INVENTION: Receptor for Cell-binding Domain of
    TITLE OF INVENTION: Thrombospondins
    NUMBER OF SEQUENCES: 13
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Scott J. Meyer, Monsanto/Searle, A3SG
      STREET: 800 N. Lindbergh Blvd.
      CITY: St. Louis
      STATE: Missouri
      COUNTRY: USA
      ZIP: 63167
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/347,000
      FILING DATE:
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/029,333
      FILING DATE: 05-MAR-1993
;
    ATTORNEY/AGENT INFORMATION:
      NAME: Meyer, Scott J.
      REGISTRATION NUMBER: 25,275
      REFERENCE/DOCKET NUMBER: WU-2848
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (314)694-3117
      TELEFAX: (314)694-5435
   INFORMATION FOR SEQ ID NO: 4:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-347-000-4
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
  Matches 3; Conservative 0; Mismatches
                                                                           0;
                                               0; Indels
                                                               0; Gaps
```

```
4 GKK 6
Qу
              111
            9 GKK 11
Db
RESULT 50
US-08-465-325-128
; Sequence 128, Application US/08465325
; Patent No. 5686563
   GENERAL INFORMATION:
     APPLICANT: Magainin Pharmaceuticals Inc.
     APPLICANT: 5110 Campus Drive
;
    APPLICANT: Plymouth Meeting, PA 19462
    TITLE OF INVENTION: Biologically Active Peptides Having
    TITLE OF INVENTION: N-Terminal Substitutions
    NUMBER OF SEQUENCES: 153
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
      ADDRESSEE: Dunner
;
      STREET: 1300 I. Street, N.W. Suite 700
      CITY: Washington
      STATE: D.C.
       COUNTRY: USA
       ZIP: 20005-3315
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/465,325
       FILING DATE: 05-JUN-1995
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/184,462
       FILING DATE: 18-JAN-94
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/891,201
       FILING DATE: 01-JUN-92
    ATTORNEY/AGENT INFORMATION:
      NAME: Fordis, Jean B
      REGISTRATION NUMBER: 32,984
       REFERENCE/DOCKET NUMBER: 05387.0021-03000
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 408-4000
       TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-465-325-128
```

```
Best Local Similarity 100.0%; Pred. No. 3.4e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
           5 KKK 7
             111
           1 KKK 3
RESULT 51
US-08-416-035-8
; Sequence 8, Application US/08416035
; Patent No. 5739278
  GENERAL INFORMATION:
    APPLICANT: Daum, Gunter
    APPLICANT: Cool, Deborah E.
    APPLICANT: Fischer, Edmond H.
    TITLE OF INVENTION: Methods and Compositions for Protein
    TITLE OF INVENTION: Tyrosine Phosphatases
    NUMBER OF SEQUENCES: 9
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Seed and Berry
      STREET: 6300 Columbia Center, 701 Fifth Avenue
      CITY: Seattle
      STATE: Washington
      COUNTRY: USA
      ZIP: 98104
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/416,035
      FILING DATE: 30-MAR-1995
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
    APPLICATION NUMBER: 08/059,949
      FILING DATE: 10-MAY-1993
    ATTORNEY/AGENT INFORMATION:
     NAME: Sharkey, Richard G.
      REGISTRATION NUMBER: 32,629
      REFERENCE/DOCKET NUMBER: 940010.531
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (206) 622-4900
      TELEFAX: (206) 682-6031
      TELEX: 3723836
  INFORMATION FOR SEQ ID NO: 8:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-416-035-8
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
```

```
5 KKK 7
Qу
             +111
            9 KKK 11
Db
RESULT 52
US-08-082-269D-2
; Sequence 2, Application US/08082269D
 Patent No. 5773227
  GENERAL INFORMATION:
    APPLICANT: Kuhn, Michael
    APPLICANT: Meyer, Tobias
    APPLICANT: Allbritton, Nancy
    TITLE OF INVENTION: Bifunctional Chelating Polysaccharides
    NUMBER OF SEQUENCES: 9
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Molecular Probes, Inc.
      STREET: 4849 Pitchford Avenue
      CITY: Eugene
      STATE: Oregon
      COUNTRY: USA
      ZIP: 97402-9144
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette, 3.5 inch
      COMPUTER: IBM
      OPERATING SYSTEM: MS-DOS 6.2
      SOFTWARE: Text Editor
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/082,269D
      FILING DATE: 23-June-1993
      CLASSIFICATION:
                        435
    ATTORNEY/AGENT INFORMATION:
      NAME: Helfenstein, Allegra J.
       REGISTRATION NUMBER: 34,179
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (503) 465-8300
       TELEFAX: (503)344-6504
   INFORMATION FOR SEQ ID NO: 2:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 AMINO ACIDS
       TYPE: Amino Acid
       TOPOLOGY: Linear
    MOLECULE TYPE: Peptide
     HYPOTHETICAL:
     FRAGMENT TYPE:
     PUBLICATION INFORMATION:
       AUTHORS: Chelsky, Daniel, Ralph, Rebecca and Jonak, Gerald
       TITLE: Sequence Requirements for Synthetic Peptide-Mediated
Translocation to the
; Patent No. 5773227
       JOURNAL: Molecular and Cellular Biology
       VOLUME:
       ISSUE:
              6
       PAGES: 2487-2492
       DATE: 1989
```

US-08-082-269D-2

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Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                             0; Gaps
                                                                           0;
           5 KKK 7
Qу
             Db
           5 KKK 7
RESULT 53
US-08-408-604A-50
; Sequence 50, Application US/08408604A
; Patent No. 5801149
  GENERAL INFORMATION:
    APPLICANT: Shoelson, Steven
    TITLE OF INVENTION: INHIBITION OF SIGNAL TRANSDUCTION MOLECULES
    NUMBER OF SEQUENCES: 211
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: LAHIVE & COCKFIELD
      STREET: 60 State Street, Suite 510
      CITY: Boston
      STATE: Massachusetts
;
      COUNTRY: USA
      ZIP: 02109-1875
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/408,604A
;
      FILING DATE: 21-MAR-1995
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/134,558
      FILING DATE: 08-OCT-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/959,949
;
      FILING DATE: 09-OCT-1992
;
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/722,359
      FILING DATE: 19-JUNE-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: Myers, Louis
      REGISTRATION NUMBER: 35,965
      REFERENCE/DOCKET NUMBER: JDP-014CP3
;
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (617)227-7400
      TELEFAX: (617)227-5941
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
;
      TOPOLOGY: linear
;
    MOLECULE TYPE: peptide
    FRAGMENT TYPE: internal
```

```
Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
                              0; Mismatches
  Matches
           3; Conservative
                                                0; Indels 0; Gaps
                                                                            0;
           3 GGK 5
Qу
             -111
Db
           8 GGK 10
RESULT 54
US-08-511-662-5
; Sequence 5, Application US/08511662
; Patent No. 5807552
; GENERAL INFORMATION:
    APPLICANT: Stanton, G. John
    APPLICANT: Hughes, Jr., Thomas K.
    APPLICANT: Smith, Eric M.
    TITLE OF INVENTION: Compositions for Conferring Immunogenicity
    TITLE OF INVENTION: to a Substance and Uses Thereof
    NUMBER OF SEQUENCES: 12
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Arnold, White & Durkee
      STREET: P.O. Box 4433
      CITY: Houston
      STATE: TX
      COUNTRY: USA
      ZIP: 77210
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/511,662
      FILING DATE: Concurrently herewith
      CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
;
      NAME: Hodgins, Daniel S.
;
      REGISTRATION NUMBER: 31,026
      REFERENCE/DOCKET NUMBER: UTSG:162/HOD
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 515/418-3000
      TELEFAX: 512/474-7577
      TELEX: NA
  INFORMATION FOR SEQ ID NO: 5:
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    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-511-662-5
  Query Match
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Best Local Similarity 100.0%; Pred. No. 3.4e+03;

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Matches 3; Conservative 0; Mismatches
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Qу
           9 MRA 11
             +111
           9 MRA 11
Db
RESULT 55
US-08-807-030-42
; Sequence 42, Application US/08807030
; Patent No. 5817755
  GENERAL INFORMATION:
     APPLICANT: Eyre, David R.
    APPLICANT: Clemens, J. Daniel
    APPLICANT: Ochs, Vincent W.
     TITLE OF INVENTION: Synthetic Peptide Analogs of NTx
     NUMBER OF SEQUENCES: 74
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Christensen O'Connor Johnson & Kindness
      ADDRESSEE: PLLC
      STREET: 1420 Fifth Avenue, Suite 2800
      CITY: Seattle
      STATE: Washington
      COUNTRY: U.S.A.
      ZIP: 98101
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/807,030
      FILING DATE:
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/446,206
       FILING DATE: 19-MAY-1995
     ATTORNEY/AGENT INFORMATION:
      NAME: Shelton, Dennis K.
      REGISTRATION NUMBER: 26,997
      REFERENCE/DOCKET NUMBER: WROS110387
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: 206 224 0718
       TELEFAX: 206 224 0779
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
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      LENGTH: 11 amino acids
;
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
     FRAGMENT TYPE: N-terminal
     FEATURE:
      NAME/KEY:
                 misc-feature
      LOCATION:
                1
      OTHER INFORMATION: Xaa is pyroglutamic acid
US-08-807-030-42
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           3 GGK 5
Qу
             111
Db
           8 GGK 10
RESULT 56
US-08-478-386A-59
; Sequence 59, Application US/08478386A
; Patent No. 5830462
  GENERAL INFORMATION:
     APPLICANT: Crabtree, Gerald R.
     APPLICANT: Schreiber, Stuart L.
    APPLICANT: Spencer, David M.
    APPLICANT: Wandless, Thomas J.
    APPLICANT: Belshaw, Peter
     TITLE OF INVENTION: REGULATED TRANSCRIPTION OF TARGETED
     TITLE OF INVENTION: GENES AND OTHER BIOLOGICAL EVENTS
     NUMBER OF SEQUENCES: 81
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: ARIAD Pharmaceuticals, Inc.
      STREET: 26 Landsdowne Street
      CITY: Cambridge
      STATE: Massachusetts
      COUNTRY: USA
      ZIP: 02139
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC/DOS/MS/DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/478,386A
;
      FILING DATE: 07/JUN/1995
      CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
      NAME: Figg, E. Anthony
;
      REGISTRATION NUMBER: 27,195
      REFERENCE/DOCKET NUMBER: 2054-114A
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 783-6040
;
      TELEFAX: (202) 783-6031
   INFORMATION FOR SEQ ID NO: 59:
;
;
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
     FEATURE:
      NAME/KEY:
                 Peptide
      LOCATION:
                 1..11
      OTHER INFORMATION: /note= "Translation product of SEQ ID
      OTHER INFORMATION: NOS:58 and 60."
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                               0; Mismatches
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                                                                0; Gaps
                                                                            0;
                                                      Indels
            5 KKK 7
Qу
             +++
            4 KKK 6
Db
RESULT 57
US-08-292-597-59
; Sequence 59, Application US/08292597
; Patent No. 5834266
  GENERAL INFORMATION:
    APPLICANT: Gerald R. Crabtree
     APPLICANT: Schreiber, Stuart L.
     APPLICANT: Spencer, David M.
    APPLICANT:
                Wandless, Thomas J.
     APPLICANT: Belshaw, Peter
     TITLE OF INVENTION: Regulated Apoptosis
    NUMBER OF SEQUENCES: 81
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: ARIAD Pharmaceuticals, Inc.
       STREET: 26 Landsdowne Street
       CITY: Cambridge
       STATE: Massachusetts
       COUNTRY: USA
       ZIP: 02139
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC/DOS/MS/DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/292,597
       FILING DATE: 18/AUG/1994
       CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
       FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Figg, E. Anthony
      REGISTRATION NUMBER: 27,195
      REFERENCE/DOCKET NUMBER: 2054-108A
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 783-6040
      TELEFAX: (202) 783-6031
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
       STRANDEDNESS: single
      TOPOLOGY: linear
     FEATURE:
      NAME/KEY:
                 Peptide
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LOCATION: 1..11
      OTHER INFORMATION: /note= "Translation product of SEQ
      OTHER INFORMATION: ID NOS:58 and 60."
US-08-292-597-59
  Query Match
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                                                             0; Gaps
                                                                           0;
           5 KKK 7
Qу
             4 KKK 6
Db
RESULT 58
US-08-719-758-3
; Sequence 3, Application US/08719758
; Patent No. 5837537
  GENERAL INFORMATION:
    APPLICANT: Campbell, Kevin P.
    APPLICANT: Jung, Daniel
    APPLICANT: Duclos, Franck
    APPLICANT: Straub, Volker
    TITLE OF INVENTION: k-SARCOGLYCAN NUCLEIC ACID SEQUENCES, AMINO
    TITLE OF INVENTION: ACID SEQUENCES AND APPLICATIONS
    NUMBER OF SEQUENCES: 21
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Kevin M. Farrell, P.C.
      STREET: P.O. Box 999
      CITY: York Harbor
      STATE: ME
      COUNTRY: USA
      ZIP: 03911
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
;
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/719,758
      FILING DATE:
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Farrell, Kevin M.
      REGISTRATION NUMBER: 35,505
      REFERENCE/DOCKET NUMBER: UIRF-9601
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (207) 363-0558
      TELEFAX: (207) 363-0528
  INFORMATION FOR SEQ ID NO: 3:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-719-758-3
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Query Match
                        27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                             0; Gaps
                                                                        0;
Qу
          1 AEG 3
             \Box
Db
           4 AEG 6
RESULT 59
US-08-244-496-29
; Sequence 29, Application US/08244496
; Patent No. 5837686
  GENERAL INFORMATION:
    APPLICANT:
    TITLE OF INVENTION: PEPTIDES AND ANTIBODIES FOR TREATMENT OF
    TITLE OF INVENTION: RHEUMATOID ARTHRITIS
    NUMBER OF SEQUENCES: 85
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
;
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/244,496
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: GB 9125024.1
      FILING DATE: 25-NOV-1991
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  INFORMATION FOR SEQ ID NO: 29:
    SEQUENCE CHARACTERISTICS:
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;
      LENGTH: 11 amino acids
      TYPE: amino acid
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      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION:
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      OTHER INFORMATION: /product= "OTHER"
      OTHER INFORMATION: /note= "AMIDATED"
US-08-244-496-29
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 Best Local Similarity 100.0%; Pred. No. 3.4e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
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           3 GGK 5
Qу
             -1111
           9 GGK 11
RESULT 60
US-08-701-124-19
; Sequence 19, Application US/08701124
; Patent No. 5846782
; GENERAL INFORMATION:
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APPLICANT: Wickham, Thomas J.
;
     APPLICANT: Roelvink, Petrus W.
     APPLICANT: Kovesdi, Imre
     TITLE OF INVENTION: TARGETING ADENOVIRUS WITH USE OF
     TITLE OF INVENTION: CONSTRAINED PEPTIDE MOTIFS
     NUMBER OF SEQUENCES: 80
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Leydig, Voit & Mayer, Ltd.
       STREET: Two Prudential Plaza - 49th Floor
       CITY: Chicago
       STATE: Illinois
       COUNTRY: USA
       ZIP: 60601
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/701,124
       FILING DATE: 21-AUG-1996
   INFORMATION FOR SEQ ID NO: 19:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-701-124-19
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                         27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 3.4e+03;
            3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           5 KKK 7
Qу
             111
Db
           3 KKK 5
RESULT 61
US-08-621-803-206
; Sequence 206, Application US/08621803
; Patent No. 5851802
  GENERAL INFORMATION:
    APPLICANT: Better, Marc D.
    TITLE OF INVENTION: Methods for Recombinant Microbial Production of
    TITLE OF INVENTION: Fusion Proteins and BPI-Derived Peptides
    NUMBER OF SEQUENCES: 265
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
      STREET: 6300 Sears Tower, 233 South Wacker Drive
      CITY: Chicago
      STATE: Illinois
      COUNTRY: United States of America
      ZIP: 60606-6402
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
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      COMPUTER: IBM PC compatible
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OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/621,803
       FILING DATE: 22-MAR-1996
     ATTORNEY/AGENT INFORMATION:
       NAME: Borun, Michael F.
       REGISTRATION NUMBER: 25,447
       REFERENCE/DOCKET NUMBER: 27129/33199
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 312/474-6300
       TELEFAX: 312/474-0448
       TELEX: 25-3856
   INFORMATION FOR SEQ ID NO: 206:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      NAME/KEY: misc_feature
      OTHER INFORMATION: "XMP.350"
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: C-Terminus
      OTHER INFORMATION: /label= Amidation
      OTHER INFORMATION: /note= "The C-Terminus is Amidated."
US-08-621-803-206
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                         27.3%; Score 3; DB 2; Length 11;
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           3; Conservative 0; Mismatches
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                                                                0; Gaps
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           5 KKK 7
Qу
             111
Db
           1 KKK 3
RESULT 62
US-08-621-259A-181
; Sequence 181, Application US/08621259A
; Patent No. 5858974
  GENERAL INFORMATION:
    APPLICANT: Little II, Roger G
    APPLICANT: Lim, Edward
    APPLICANT: Fadem, Mitchell B.
    TITLE OF INVENTION: Anti-Fungal Peptides
    NUMBER OF SEQUENCES: 252
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: McAndrews, Held & Malloy, Ltd.
      STREET: 500 West Madison Street
      CITY: Chicago
      STATE: Illinois
      COUNTRY: United States of America
      ZIP: 60661
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
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COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/621,259A
       FILING DATE: 21-MAR-1996
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/504,841
       FILING DATE: 20-JUL-1995
     ATTORNEY/AGENT INFORMATION:
       NAME: McNicholas, Janet M.
       REGISTRATION NUMBER: 32,918
       REFERENCE/DOCKET NUMBER: 11021US02
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 312/707-8889
       TELEFAX: 312/707-9155
       TELEX:
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
      TOPOLOGY: linear
     MOLECULE TYPE: peptide
     FEATURE:
      NAME/KEY: misc feature
       OTHER INFORMATION: "XMP.350"
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: C-Terminus
      OTHER INFORMATION: /label= Amidation
      OTHER INFORMATION: /note= "The C-Terminus is Amidated."
US-08-621-259A-181
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                         27.3%; Score 3; DB 2; Length 11;
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           5 KKK 7
Qу
             111
Db
           1 KKK 3
RESULT 63
US-08-388-653-59
; Sequence 59, Application US/08388653
; Patent No. 5869337
  GENERAL INFORMATION:
     APPLICANT: Crabtree, Gerald R.
     APPLICANT: Schreiber, Stuart L.
     APPLICANT: Spencer, David M.
     APPLICANT: Wandless, Thomas J.
     APPLICANT: Belshaw, Peter
     TITLE OF INVENTION: REGULATED TRANSCRIPTION OF TARGETED
     TITLE OF INVENTION: GENES AND OTHER BIOLOGICAL EVENTS
     NUMBER OF SEQUENCES: 81
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: ARIAD Pharmaceuticals, Inc.
```

```
STREET: 26 Landsdowne Street
       CITY: Cambridge
       STATE: Massachusetts
       COUNTRY: USA
       ZIP: 02139
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
;
       OPERATING SYSTEM: PC/DOS/MS/DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/388,653
       FILING DATE: 14-FEB-1995
       CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/478,386
       FILING DATE: 07-JUN-1995
     ATTORNEY/AGENT INFORMATION:
       NAME: Figg, E. Anthony
       REGISTRATION NUMBER: 27,195
       REFERENCE/DOCKET NUMBER: 2054-114A
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 783-6040
       TELEFAX: (202) 783-6031
   INFORMATION FOR SEQ ID NO: 59:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
     FEATURE:
      NAME/KEY: Peptide
      LOCATION: 1..11
      OTHER INFORMATION: /note= "Translation product of SEQ ID
       OTHER INFORMATION: NOS:58 and 60."
US-08-388-653-59
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                                                                             0;
Qу
           5 KKK 7
             111
Db
            4 KKK 6
RESULT 64
US-08-473-985-59
; Sequence 59, Application US/08473985
; Patent No. 5871753
  GENERAL INFORMATION:
    APPLICANT: Crabtree, Gerald R.
    APPLICANT: Schreiber, Stuart L.
    APPLICANT:
                Spencer, David M.
    APPLICANT: Wandless, Thomas J. APPLICANT: Belshaw, Peter
    APPLICANT: Ho, Steffan
```

```
TITLE OF INVENTION: Regulated Transcription of Targeted Genes and
     TITLE OF INVENTION:
                         Other Biological Events
     NUMBER OF SEQUENCES: 66
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Campbell and Flores
       STREET: 4370 La Jolla Village Drive, Suite 700
      CITY: San Diego
      STATE: California
      COUNTRY: USA
       ZIP: 92122
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/473,985
      FILING DATE:
      CLASSIFICATION:
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/179,748
      FILING DATE: 07-JAN-1994
    ATTORNEY/AGENT INFORMATION:
      NAME: Campbell, Cathryn A.
      REGISTRATION NUMBER: 31,815
      REFERENCE/DOCKET NUMBER: P-SU 9863
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (619) 535-9001
      TELEFAX: (619) 535-8949
   INFORMATION FOR SEQ ID NO: 59:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
     FEATURE:
      NAME/KEY:
                 Peptide
      LOCATION: 1..11
      OTHER INFORMATION: /note= "Translation product of SEQ
      OTHER INFORMATION: ID NOS:58 and 60."
US-08-473-985-59
  Query Match
                         27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
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           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           5 KKK 7
Qy
             III
Db
           4 KKK 6
RESULT 65
US-08-938-367-1
; Sequence 1, Application US/08938367
; Patent No. 5955582
  GENERAL INFORMATION:
    APPLICANT: Newman, Karel
```

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APPLICANT: Ogbonna, Godwin
    APPLICANT: Odegaard, Bruce
    APPLICANT: Schmidt, Jane
    TITLE OF INVENTION: AN ANTIBODY AGAINST A 3-A
    TITLE OF INVENTION: MINOPHENYLBORONIC-GLYCATED PROTEIN COMPLEX
    TITLE OF INVENTION: AND ITS USE IN AN IMMUNOASSAY
    NUMBER OF SEQUENCES: 1
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Beckman Coulter, Inc.
      STREET: 4300 N. Harbor Blvd, P.O. Box 3100
      CITY: Fullerton
      STATE: CA
      COUNTRY: USA
      ZIP: 92834
    COMPUTER READABLE FORM:
     MEDIUM TYPE: Diskette
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: Windows
      SOFTWARE: FastSEQ for Windows Version 2.0b
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/938,367
      FILING DATE: 26-SEP-1997
;
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER:
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: May, William H
      REGISTRATION NUMBER: 26,769
      REFERENCE/DOCKET NUMBER: 174D-1726
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 714-871-4848
      TELEFAX: 714-773-7936
      TELEX:
  INFORMATION FOR SEQ ID NO: 1:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-938-367-1
                         27.3%; Score 3; DB 2; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 3.4e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches •
Qу
           2 EGG 4
             111
Db
           6 EGG 8
RESULT 66
US-08-053-451B-159
; Sequence 159, Application US/08053451B
; Patent No. 5955584
; GENERAL INFORMATION:
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APPLICANT: Chen, Francis W.
    APPLICANT: Ditlow, Charles C.
                Calenoff, Emanuel
    APPLICANT:
     TITLE OF INVENTION: ATHEROSCLEROTIC PLAQUE SPECIFIC
     TITLE OF INVENTION: ANTIGENS, ANTIBODIES THERETO, AND USES THEREOF
     NUMBER OF SEQUENCES: 176
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: USA
       ZIP: 10036
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/053,451B
      FILING DATE: 26-APR-1993
      CLASSIFICATION: 424
    ATTORNEY/AGENT INFORMATION:
      NAME: Halluin, Albert P.
      REGISTRATION NUMBER: 25,227
      REFERENCE/DOCKET NUMBER: 7606-033-999
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 415-854-3660
      TELEFAX: 415-854-3694
      TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 159:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: unknown
      TOPOLOGY: unknown
    MOLECULE TYPE: protein
US-08-053-451B-159
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                         27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps
Qу
           9 MRA 11
             Db
           1 MRA 3
RESULT 67
US-08-483-898-59
; Sequence 59, Application US/08483898
; Patent No. 5994313
  GENERAL INFORMATION:
    APPLICANT: Gerald R. Crabtree
    APPLICANT:
                Schreiber, Stuart L.
    APPLICANT: Spencer, David M.
    APPLICANT: Wandless, Thomas J.
```

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APPLICANT: Belshaw, Peter
     TITLE OF INVENTION: Regulated Apoptosis
     NUMBER OF SEQUENCES: 81
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: ARIAD Pharmaceuticals, Inc.
       STREET: 26 Landsdowne Street
      CITY: Cambridge
       STATE: Massachusetts
       COUNTRY: USA
       ZIP: 02139
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC/DOS/MS/DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
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      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/292,597
;
       FILING DATE: 18-AUG-1994
;
    ATTORNEY/AGENT INFORMATION:
      NAME: Figg, E. Anthony
       REGISTRATION NUMBER: 27,195
       REFERENCE/DOCKET NUMBER: 2054-108A
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 783-6040
       TELEFAX: (202) 783-6031
   INFORMATION FOR SEQ ID NO: 59:
    SEQUENCE CHARACTERISTICS:
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      LENGTH: 11 amino acids
      TYPE: amino acid
       STRANDEDNESS: single
      TOPOLOGY: linear
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; Sequence 75, Application US/08369643A
; Patent No. 6004757
; GENERAL INFORMATION:
; APPLICANT: Cantley, Lewis C.
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APPLICANT: Songyang, Zhou
   TITLE OF INVENTION: Substrate Specificity of Protein Kinases
  FILE REFERENCE: CNS-001CP
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   CURRENT FILING DATE: 1995-01-06
   EARLIER APPLICATION NUMBER: US 08/178,570
  EARLIER FILING DATE: 1994-01-07
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US-08-369-643-75
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US-08-750-419A-29
; Sequence 29, Application US/08750419A
; Patent No. 6008340
; GENERAL INFORMATION:
     APPLICANT: BALL, TANJA
     APPLICANT: VRTALA, SUSANNE
     APPLICANT: SPERR, WOLFGANG
     APPLICANT: VALENT, PETER
    APPLICANT: SUSANI, MARKUS
     APPLICANT: KRAFT, DIETRICH
     APPLICANT: LAFFER, SYLVIA
     TITLE OF INVENTION: RECOMBINANT ALLERGEN, FRAGMENTS THEREOF,
     TITLE OF INVENTION: CORRESPONDING RECOMBINANT DNA MOLECULES, VECTORS AND
     TITLE OF INVENTION: CONTAINING THE DNA MOLECULES, DIAGNOSTIC AND
THERAPEUTIC
     TITLE OF INVENTION: USES OF SAID ALLERGENS AND FRAGMENTS
     NUMBER OF SEQUENCES: 33
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: BIRCH, STEWART, KOLASCH AND BIRCH
       STREET: PO BOX 747
       CITY: FALLS CHURCH
       STATE: VA
       COUNTRY: USA
       ZIP: 22040-0747
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    ATTORNEY/AGENT INFORMATION:
      NAME: MURPHY JR, GERALD M
       REGISTRATION NUMBER: 28,977
       REFERENCE/DOCKET NUMBER: 1614-175
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (703) 205-8000
       TELEFAX: (703) 205-8050
   INFORMATION FOR SEQ ID NO: 29:
    SEQUENCE CHARACTERISTICS:
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; Patent No. 6011018
   GENERAL INFORMATION:
    APPLICANT: Crabtree, Gerald R.
    APPLICANT: Schreiber, Stuart L.
    APPLICANT: Spencer, David M.
    APPLICANT: Wandless, Thomas J.
    APPLICANT: Belshaw, Peter
    TITLE OF INVENTION: REGULATED TRANSCRIPTION OF TARGETED
    TITLE OF INVENTION: GENES AND OTHER BIOLOGICAL EVENTS
    NUMBER OF SEQUENCES: 81
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ARIAD Pharmaceuticals, Inc.
       STREET: 26 Landsdowne Street
      CITY: Cambridge
      STATE: Massachusetts
      COUNTRY: USA
       ZIP: 02139
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APPLICATION NUMBER: US/09/087,716
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    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/388,653
      FILING DATE: 02/14/1995
    ATTORNEY/AGENT INFORMATION:
      NAME: Figg, E. Anthony
      REGISTRATION NUMBER: 27,195
      REFERENCE/DOCKET NUMBER: 2054-114A
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 783-6040
      TELEFAX: (202) 783-6031
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  INFORMATION FOR SEQ ID NO: 59:
    SEQUENCE CHARACTERISTICS:
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      TYPE: amino acid
      STRANDEDNESS: single
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      OTHER INFORMATION: NOS:58 and 60."
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; Sequence 5, Application US/09015003
; Patent No. 6030783
  GENERAL INFORMATION:
    APPLICANT: KANE, Stefanie A.
    APPLICANT: LIPPARD, Stephen J.
    TITLE OF INVENTION: Photo-Potentiation of Cisplatin
    TITLE OF INVENTION: Chemotherapy
    NUMBER OF SEQUENCES: 8
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: Patent Administrator, Testa, Hurwitz &
;
      ADDRESSEE: Thibeault, LLP
;
      STREET: 125 High St.
      CITY: Boston
      STATE: MA
      COUNTRY: USA
      ZIP: 02110
    COMPUTER READABLE FORM:
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       CLASSIFICATION:
     ATTORNEY/AGENT INFORMATION:
       NAME: FENTON, Gillian M.
       REGISTRATION NUMBER: 36,508
       REFERENCE/DOCKET NUMBER: MIT-079
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (617) 248-7000
       TELEFAX: (617) 248-7100
   INFORMATION FOR SEQ ID NO: 5:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
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Db
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RESULT 72
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; Sequence 59, Application US/09157753
; Patent No. 6043082
  GENERAL INFORMATION:
    APPLICANT: Crabtree, Gerald R.
    APPLICANT: Schreiber, Stuart L.
    APPLICANT: Spencer, David M.
    APPLICANT: Wandless, Thomas J. APPLICANT: Belshaw, Peter
    TITLE OF INVENTION: REGULATED TRANSCRIPTION OF TARGETED
    TITLE OF INVENTION: GENES AND OTHER BIOLOGICAL EVENTS
    NUMBER OF SEQUENCES: 81
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ARIAD Pharmaceuticals, Inc.
       STREET: 26 Landsdowne Street
       CITY: Cambridge
       STATE: Massachusetts
      COUNTRY: USA
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       FILING DATE: 14-FEB-1995
      APPLICATION NUMBER: US 08/478,386
       FILING DATE: 07-JUN-1995
     ATTORNEY/AGENT INFORMATION:
      NAME: Figg, E. Anthony
      REGISTRATION NUMBER: 27,195
      REFERENCE/DOCKET NUMBER: 2054-114A
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 783-6040
      TELEFAX: (202) 783-6031
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     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
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; Sequence 59, Application US/09157230
; Patent No. 6046047
  GENERAL INFORMATION:
    APPLICANT: Crabtree, Gerald R.
    APPLICANT: Schreiber, Stuart L.
    APPLICANT: Spencer, David M.
    APPLICANT: Wandless, Thomas J.
    APPLICANT: Belshaw, Peter
    TITLE OF INVENTION: REGULATED TRANSCRIPTION OF TARGETED
    TITLE OF INVENTION: GENES AND OTHER BIOLOGICAL EVENTS
    NUMBER OF SEQUENCES: 81
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ARIAD Pharmaceuticals, Inc.
      STREET: 26 Landsdowne Street
      CITY: Cambridge
      STATE: Massachusetts
      COUNTRY: USA
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       CLASSIFICATION:
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 08/478,386
       FILING DATE: 07/JUN/1995
     ATTORNEY/AGENT INFORMATION:
       NAME: Figg, E. Anthony
       REGISTRATION NUMBER: 27,195
       REFERENCE/DOCKET NUMBER: 2054-114A
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 783-6040
       TELEFAX: (202) 783-6031
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     SEQUENCE CHARACTERISTICS:
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       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
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US-09-087-811-59
; Sequence 59, Application US/09087811
; Patent No. 6054436
   GENERAL INFORMATION:
     APPLICANT: Gerald R. Crabtree APPLICANT: Schreiber, Stuart L.
     APPLICANT: Spencer, David M.
     APPLICANT: Wandless, Thomas J.
     APPLICANT: Belshaw, Peter
     TITLE OF INVENTION: Regulated Apoptosis
     NUMBER OF SEQUENCES: 81
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: ARIAD Pharmaceuticals, Inc.
       STREET: 26 Landsdowne Street
       CITY: Cambridge
       STATE: Massachusetts
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      APPLICATION NUMBER: US/09/087,811
       FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/292,597
       FILING DATE: 18-AUG-1994
    ATTORNEY/AGENT INFORMATION:
      NAME: Figg, E. Anthony
       REGISTRATION NUMBER: 27,195
       REFERENCE/DOCKET NUMBER: 2054-108A
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (202) 783-6040
       TELEFAX: (202) 783-6031
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    SEQUENCE CHARACTERISTICS:
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       TYPE: amino acid
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RESULT 75
US-09-130-225-19
; Sequence 19, Application US/09130225
; Patent No. 6057155
  GENERAL INFORMATION:
    APPLICANT: Wickham, Thomas J.
    APPLICANT: Roelvink, Petrus W.
    APPLICANT: Kovesdi, Imre
    TITLE OF INVENTION: TARGETING ADENOVIRUS WITH USE OF
    TITLE OF INVENTION: CONSTRAINED PEPTIDE MOTIFS
    NUMBER OF SEQUENCES: 80
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Leydig, Voit & Mayer, Ltd.
      STREET: Two Prudential Plaza - 49th Floor
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CITY: Chicago
      STATE: Illinois
      COUNTRY: USA
      ZIP: 60601
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
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      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/130,225
      FILING DATE:
   PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 8-701124
      FILING DATE: 21-AUG-1996
  INFORMATION FOR SEQ ID NO: 19:
    SEQUENCE CHARACTERISTICS:
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Qу
             \perp
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Db
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Job time : 12.3077 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

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(without alignments)

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Title: US-09-787-443A-19

Perfect score: 11

Sequence: 1 AEGGKKKKMRA 11

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Gapop 60.0 , Gapext 60.0

Searched: 283366 seqs, 96191526 residues

Word size:

Total number of hits satisfying chosen parameters: 226

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

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1: pir1:* 2: pir2:* 3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

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67 68	1	9.1	11	2	S32575	ribosomal protein
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89	1	9.1	11	2	D58502	27K bile and gallb
90	1	9.1	11	2	A58502	38K kidney stone p
91	1	9.1	11	2	F58501	43.5K bile stone p
92	1	9.1	11	2	I41138	acetyl ornithine d
93	1	9.1	11	2	S42587	celF protein - Esc
94	1	9.1	11	2	S35490	type II site-speci
95	1	9.1	11	2	S21127	precorrin methyltr
96	1	9.1	11	2	S70720	trigger factor hom
97	1	9.1	11	2	S33782	acetolactate synth
98	1	9.1	11	2	B39853	LuxC protein - Pho
99	1	9.1	11	2	A58838	hemolysin - Porphy
100	1	9.1	11	2	B43669	hypothetical prote

## ALIGNMENTS

```
RESULT 1
PU0029
33K protein 3218 - rice (strain Nohonbare) (fragment)
C; Species: Oryza sativa (rice)
C;Date: 03-Feb-1994 #sequence revision 03-Feb-1994 #text_change 11-Apr-1995
C; Accession: PU0029
R;Tsugita, A.; Miyatake, N.
submitted to JIPID, April 1993
A; Reference number: PS0208
A; Accession: PU0029
A; Molecule type: protein
A; Residues: 1-11 <TSU>
A; Experimental source: bran
C; Comment: molecular weight 33K, pI 6.0.
                         27.3%; Score 3; DB 2; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 4e+03;
                                                                             0;
                                                                 0; Gaps
 Matches
            3; Conservative 0; Mismatches 0; Indels
Qу
            2 EGG 4
              +111
Db
            3 EGG 5
```

```
RESULT 2
PC2173
triacylglycerol lipase (EC 3.1.1.3) II - Rhizopus niveus (strain IFO 4759)
(fragments)
C; Species: Rhizopus niveus
C;Date: 03-May-1994 #sequence revision 07-Oct-1994 #text change 07-May-1999
C; Accession: PC2173
R; Kohno, M.; Kugimiya, W.; Hashimoto, Y.; Morita, Y.
Biosci. Biotechnol. Biochem. 58, 1007-1012, 1994
A; Title: Purification, characterization, and crystallization of two types of
lipase from Rhizopus niveus.
A; Reference number: PC2171; MUID: 94319059; PMID: 7765029
A; Accession: PC2173
A; Molecule type: protein
A; Residues: 1-10;11 < KOH>
C; Comment: This enzyme catalyzes the hydrolysis of the ester bonds of
triacylglycerols and the synthesis of ester bonds via transesterification.
C; Comment: This enzyme is produced from lipase I by limited proteolysis due to
the action of a serine protease.
C; Keywords: carboxylic ester hydrolase
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+03;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                              0; Mismatches
                                                 0; Indels
  Matches
             3; Conservative
            3 GGK 5
Qy
              III
            3 GGK 5
Db
RESULT 3
s57575
T cell receptor V-J junctional alpha chain region - human (fragment)
C; Species: Homo sapiens (man)
C; Date: 19-Oct-1995 #sequence revision 17-Nov-1995 #text change 05-Nov-1999
C; Accession: S57575
R; Burrows, S.R.; Silins, S.L.; Moss, D.J.; Khanna, R.; Misko, I.S.; Argaet, V.P.
submitted to the EMBL Data Library, June 1995
A; Description: T cell receptor repertoire for a viral epitope in humans is
diversified by tolerance to a background MHC antigen.
A; Reference number: S57494
A; Accession: S57575
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-11 <BUR>
A; Cross-references: EMBL: Z49953; NID: g887510; PIDN: CAA90224.1; PID: g887511
C; Keywords: T-cell receptor
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+03;
  Best Local Similarity
                                                                              0;
             3; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
  Matches
            3 GGK 5
Qу
              +11
Db
            5 GGK 7
```

```
RESULT 4
S60294
tubulin 2 beta-3 chain - fruit fly (Drosophila melanogaster) (fragment)
C; Species: Drosophila melanogaster
C;Date: 19-Jul-1996 #sequence revision 26-Jul-1996 #text change 21-Jun-2002
C; Accession: S60294
R; Chapel, S.; Sobrier, M.L.; Montpied, P.; Micard, D.; Bruhat, A.; Couderc,
J.L.; Dastugue, B.
Insect Mol. Biol. 2, 39-48, 1993
A; Title: In Drosophila Kc cells 20-OHE induction of the 60C beta-3 tubulin gene
expression is a primary transcriptional event.
A; Reference number: S60292; MUID: 97242543; PMID: 9087542
A; Accession: S60294
A; Molecule type: mRNA
A; Residues: 1-11 < CHA>
A; Cross-references: EMBL: X60393
C; Genetics:
A; Gene: FlyBase: beta-Tub60D
A; Cross-references: FlyBase: FBqn0003888
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 4e+03;
  Best Local Similarity
                                                                  0; Gaps
                                                                               0;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
            3 GGK 5
Qу
              \perp
            9 GGK 11
Db
RESULT 5
GMROL
leucosulfakinin - Madeira cockroach
N; Alternate names: LSK
C; Species: Leucophaea maderae (Madeira cockroach)
C;Date: 17-Mar-1987 #sequence revision 17-Mar-1987 #text_change 13-Sep-1996
C; Accession: A01622
R; Nachman, R.J.; Holman, G.M.; Haddon, W.F.; Ling, N.
Science 234, 71-73, 1986
A; Title: Leucosulfakinin, a sulfated insect neuropeptide with homology to
gastrin and cholecystokinin.
A; Reference number: A01622; MUID: 86315858; PMID: 3749893
A; Accession: A01622
A; Molecule type: protein
A; Residues: 1-11 < NAC>
C; Superfamily: gastrin
C; Keywords: amidated carboxyl end; hormone; sulfoprotein
F;6/Binding site: sulfate (Tyr) (covalent) #status experimental
F;11/Modified site: amidated carboxyl end (Phe) #status experimental
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
                                                                               0;
             2; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
            9 MR 10
Qу
```

 $\mathbf{H}$ 

```
RESULT 6
S66196
alcohol dehydrogenase (EC 1.1.1.1) class III high affinity form - cod (Gadus
sp.) (fragment)
C; Species: Gadus sp. (cod)
C; Date: 14-Feb-1997 #sequence revision 13-Mar-1997 #text change 12-Jun-1998
C; Accession: S66196
R; Hjelmqvist, L.; Hackett, M.; Shafqat, J.; Danielsson, O.; Iida, J.;
Hendrickson, R.C.; Michel, H.; Shabanowitz, J.; Hunt, D.F.; Joernvall, H.
FEBS Lett. 367, 237-240, 1995
A; Title: Multiplicity of N-terminal structures of medium-chain alcohol
dehydrogenases. Mass-spectrometric analysis of plant, lower vertebrate and
higher vertebrate class I, II, and III forms of the enzyme.
A; Reference number: S66191; MUID: 95331382; PMID: 7607314
A; Accession: S66196
A; Molecule type: protein
A; Residues: 1-11 <HJE>
C; Superfamily: alcohol dehydrogenase; long-chain alcohol dehydrogenase homology
C; Keywords: alcohol metabolism; NAD; oxidoreductase
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             2; Conservative
                              0; Mismatches
           10 RA 11
Qу
              5 RA 6
Db
RESULT 7
A33917
dihydroorotase (EC 3.5.2.3) - Chinese hamster (fragment)
C; Species: Cricetulus griseus (Chinese hamster)
C;Date: 09-Mar-1990 #sequence revision 09-Mar-1990 #text change 07-Nov-1997
C; Accession: A33917
R; Simmer, J.P.; Kelly, R.E.; Scully, J.L.; Grayson, D.R.; Rinker Jr., A.G.;
Bergh, S.T.; Evans, D.R.
Proc. Natl. Acad. Sci. U.S.A. 86, 4382-4386, 1989
A; Title: Mammalian aspartate transcarbamylase (ATCase): sequence of the ATCase
domain and interdomain linker in the CAD multifunctional polypeptide and
properties of the isolated domain.
A; Reference number: A33917; MUID: 89282776; PMID: 2543974
A; Accession: A33917
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-11 <SIM>
A; Cross-references: GB:M23652
C; Superfamily: rudimentary enzyme; aspartate/ornithine carbamoyltransferase
homology; Bacillus dihydroorotase homology; biotin carboxylase homology;
carbamoyl-phosphate synthase (ammonia) homology; carbamoyl-phosphate synthase
(glutamine-hydrolyzing) large chain homology; carbamoyl-phosphate synthase
(glutamine-hydrolyzing) small chain homology; trpG homology
C; Keywords: hydrolase
```

```
18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                  0: Gaps
                                                                               0;
             2; Conservative
                                                    0: Indels
            2 EG 3
Qу
              \perp
Db
            2 EG 3
RESULT 8
PQ0682
photosystem I 17.5K D2 chain - common tobacco (fragment)
C; Species: Nicotiana tabacum (common tobacco)
C;Date: 19-May-1994 #sequence revision 19-May-1994 #text change 17-Mar-1999
C; Accession: PQ0682
R; Obokata, J.; Mikami, K.; Hayashida, N.; Nakamura, M.; Sugiura, M.
Plant Physiol. 102, 1259-1267, 1993
A; Title: Molecular heterogeneity of photosystem I. psaD, psaE, psaF, psaH and
psaL are all present in isoforms in Nicotiana spp.
A; Reference number: PQ0667; MUID: 94105345; PMID: 8278548
A; Accession: PQ0682
A; Molecule type: protein
A; Residues: 1-11 <OBO>
C; Superfamily: photosystem I chain II
C; Keywords: chloroplast; photosynthesis; photosystem I; thylakoid
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
                                 0; Mismatches
                                                       Indels
                                                                  0; Gaps
                                                                               0;
            2: Conservative
                                                    0;
            1 AE 2
Qу
              \mathbf{H}
Db
            1 AE 2
RESULT 9
C53652
rhlR protein - Pseudomonas aeruginosa (fragment)
C; Species: Pseudomonas aeruginosa
C;Date: 21-Jul-1995 #sequence_revision 28-Jul-1995 #text change 21-Aug-1998
C; Accession: C53652
R;Ochsner, U.A.; Fiechter, A.; Reiser, J.
J. Biol. Chem. 269, 19787-19795, 1994
A; Title: Isolation, characterization, and expression in Escherichia coli of the
Pseudomonas aeruginosa rhlAB genes encoding a rhamnosyltransferase involved in
rhamnolipid biosurfactant synthesis.
A; Reference number: A53652; MUID: 94327521; PMID: 8051059
A; Accession: C53652
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <OCH>
A; Cross-references: GB:L28170
C; Superfamily: sdiA regulatory protein
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
                                0; Mismatches
                                                                               0;
  Matches
             2; Conservative
                                                    0;
                                                       Indels
                                                                  0; Gaps
```

```
3 GG 4
Qу
              5 GG 6
Db
RESULT 10
YHRT
morphogenetic neuropeptide - rat
C; Species: Rattus norvegicus (Norway rat)
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: A01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator by the authors, because it induced head-specific growth
and differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; hypothalamus; intestine; neuropeptide;
pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
  Matches
             2; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            3 GG 4
              11
            4 GG 5
Db
RESULT 11
YHHU
morphogenetic neuropeptide - human
C; Species: Homo sapiens (man)
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: B01427; A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
```

A; Accession: B01427

```
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine;
neuropeptide
F;1/Modified site: blocked amino end (Gln) (probably pyrrolidone carboxylic
acid) #status experimental
                          18.2%; Score 2;
                                             DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
             2; Conservative
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
                                0; Mismatches
  Matches
            3 GG 4
QУ
              11
            4 GG 5
Db
RESULT 12
YHBO
morphogenetic neuropeptide - bovine
C; Species: Bos primigenius taurus (cattle)
C;Date: 20-Jun-2000 #sequence_revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: C01427; A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: C01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine;
neuropeptide
```

A; Molecule type: protein

```
F;1/Modified site: blocked amino end (Gln) (probably pyrrolidone carboxylic
acid) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
                                                                              0;
            2; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
            3 GG 4
Qy
              Db
            4 GG 5
RESULT 13
YHXAE
morphogenetic neuropeptide - sea anemone (Anthopleura elegantissima)
N; Alternate names: head activator
C; Species: Anthopleura elegantissima
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text_change 20-Jun-2000
C; Accession: A93900; A01427
R; Schaller, H.C.; Bodenmuller, H.
Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981
A; Title: Isolation and amino acid sequence of a morphogenetic peptide from
hydra.
A; Reference number: A93900
A; Accession: A93900
A; Molecule type: protein
A; Residues: 1-11 <SCH>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has also been found in mammalian intestine
and hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0\%; Pred. No. 3.4e+04;
 Matches
            2; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            3 GG 4
Qу
              4 GG 5
Db
RESULT 14
YHJFHY
morphogenetic neuropeptide - Hydra attenuata
N; Alternate names: head activator
C; Species: Hydra attenuata
```

C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000

```
C; Accession: B93900; A01427
R; Schaller, H.C.; Bodenmuller, H.
Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981
A; Title: Isolation and amino acid sequence of a morphogenetic peptide from
hydra.
A: Reference number: A93900
A; Accession: B93900
A; Molecule type: protein
A; Residues: 1-11 <SCH>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has also been found in mammalian intestine
and hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
             2; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            3 GG 4
Qу
              Db
            4 GG 5
RESULT 15
S42449
ant1 protein - phage P7
C; Species: phage P7
C;Date: 07-Sep-1994 #sequence_revision 26-May-1995 #text change 08-Oct-1999
C; Accession: S42449
R; Citron, M.; Schuster, H.
Cell 62, 591-598, 1990
A; Title: The c4 repressors of bacteriophages P1 and P7 are antisense RNAs.
A; Reference number: S42448; MUID: 90335968; PMID: 1696181
A; Accession: S42449
A; Status: preliminary; translation not shown
A; Molecule type: DNA
A; Residues: 1-11 <CIT>
A; Cross-references: EMBL: M35139; NID: g215705; PIDN: AAA32437.1; PID: g215707
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
                                 0; Mismatches
             2; Conservative
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            5 KK 6
Qy
              -11
            2 KK 3
Db
```

```
RESULT 16
C58501
42K bile stone protein - unidentified bacterium (fragment)
C; Species: unidentified bacterium
C; Date: 07-Feb-1997 #sequence revision 07-Feb-1997 #text change 10-Jul-1998
C; Accession: C58501
R; Binette, J.P.; Binette, M.B.
submitted to the Protein Sequence Database, October 1996
A; Description: The proteins of kidney and gallbladder stones.
A; Reference number: A58501
A; Accession: C58501
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <BIN>
A; Experimental source: human bile with stones
A; Note: tentitive identification of 1-Gly
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
                                                                               0;
             2; Conservative 0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
  Matches
            3 GG 4
Qу
              11
            1 GG 2
Db
RESULT 17
J00395
hypothetical protein (nodB 3' region) - Azorhizobium caulinodans
N; Alternate names: hypothetical 1.4K protein
C; Species: Azorhizobium caulinodans
A; Note: host Sesbania rostrata
C; Date: 07-Sep-1990 #sequence revision 07-Sep-1990 #text change 03-Feb-1994
C; Accession: JQ0395
R; Goethals, K.; Gao, M.; Tomekpe, K.; Van Montagu, M.; Holsters, M.
Mol. Gen. Genet. 219, 289-298, 1989
A; Title: Common nodABC genes in Nod locus 1 of Azorhizobium caulinodans:
nucleotide sequence and plant-inducible expression.
A; Reference number: JQ0393; MUID: 90136519; PMID: 2615763
A; Accession: JQ0395
A; Molecule type: DNA
A; Residues: 1-11 <GOE>
A; Cross-references: GB:L18897
A; Experimental source: strain ORS571
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                           100.0%; Pred. No. 3.4e+04;
                                                    0; Indels
                                                                       Gaps
                                0; Mismatches
  Matches
             2; Conservative
            9 MR 10
Qу
              \mathbf{I}
Db
            1 MR 2
```

RESULT 18 PQ0231

```
beta-glucosidase (EC 3.2.1.21) - Cellvibrio gilvus (fragment)
C; Species: Cellvibrio gilvus
C;Date: 31-Mar-1992 #sequence revision 31-Mar-1992 #text change 07-May-1999
C; Accession: PQ0231
R; Kashiwagi, Y.; Iijima, C.; Sasaki, T.; Taniguchi, H.
Agric. Biol. Chem. 55, 2553-2559, 1991
A; Title: Characterization of a beta-glucosidase encoded by a gene from
Cellvibrio gilvus.
A; Reference number: PQ0231; MUID: 92144103; PMID: 1368758
A; Accession: PQ0231
A; Molecule type: protein
A; Residues: 1-11 <KAS>
C; Keywords: glycosidase; hydrolase; polysaccharide degradation
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.4e+04;
                                                                             0;
           2; Conservative
                              0; Mismatches 0; Indels
                                                                 0; Gaps
 Matches
            1 AE 2
Qу
             Db
            5 AE 6
RESULT 19
S66606
quinoline 2-oxidoreductase alpha chain - Comamonas testosteroni (fragment)
C; Species: Comamonas testosteroni
C;Date: 15-Feb-1997 #sequence revision 13-Mar-1997 #text_change 17-Mar-1999
C; Accession: S66606
R; Schach, S.; Tshisuaka, B.; Fetzner, S.; Lingens, F.
Eur. J. Biochem. 232, 536-544, 1995
A; Title: Quinoline 2-oxidoreductase and 2-oxo-1, 2-dihydroquinoline 5,6-
dioxygenase from Comamonas testosteroni 63. The first two enzymes in quinoline
and 3-methylquinoline degradation.
A; Reference number: S66606; MUID: 96035889; PMID: 7556204
A; Accession: S66606
A; Molecule type: protein
A; Residues: 1-11 <SCH>
A; Experimental source: strain 63
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
           2; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
  Matches
            1 AE 2
Qу
              | |
            6 AE 7
Db
RESULT 20
S58244
pyrroloquinoline quinone synthesis C - Pseudomonas fluorescens (fragment)
C; Species: Pseudomonas fluorescens
C;Date: 13-Jan-1996 #sequence revision 01-Mar-1996 #text change 08-Oct-1999
C: Accession: S58244
R; Schnider, U.; Keel, C.; Defago, G.; Haas, D.
submitted to the EMBL Data Library, May 1995
```

```
A; Description: Tn5-directed cloning of pgg genes from Pseudomonas fluorescens
CHAO: their involvement in the production of the antibiotic pyoluteorin.
A: Reference number: S58239
A; Accession: S58244
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <SCH>
A; Cross-references: EMBL: X87299; NID: g929799; PIDN: CAA60734.1; PID: g929806
  Query Match
                           18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%;
                                   Pred. No. 3.4e+04;
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                               0;
  Matches
             2; Conservative
                                                                   0; Gaps
            1 AE 2
Qу
              \mathbf{I}
            9 AE 10
Db
RESULT 21
S04875
nifS protein - Bradyrhizobium japonicum (fragment)
C; Species: Bradyrhizobium japonicum
C;Date: 07-Sep-1990 #sequence revision 07-Sep-1990 #text change 08-Oct-1999
C; Accession: S04875
R; Ebeling, S.
submitted to the EMBL Data Library, December 1988
A; Reference number: S04873
A; Accession: S04875
A; Molecule type: DNA
A; Residues: 1-11 <EBE>
A; Cross-references: EMBL:X13691; NID:q39544; PIDN:CAA31982.1; PID:q580775
C; Genetics:
A; Gene: nifS
A; Start codon: GTG
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
                                                        Indels
                                                                               0;
  Matches
             2; Conservative 0; Mismatches
                                                    0;
                                                                   0; Gaps
           10 RA 11
Qу
              11
            5 RA 6
Db
RESULT 22
E60691
phycobilisome 8K linker protein - Synechococcus sp. (PCC 7002) (fragment)
C; Species: Synechococcus sp.
C; Date: 14-May-1993 #sequence revision 14-May-1993 #text change 07-May-1999
C; Accession: E60691
R; Bryant, D.A.; de Lorimier, R.; Guglielmi, G.; Stevens Jr., S.E.
Arch. Microbiol. 153, 550-560, 1990
A; Title: Structural and compositional analyses of the phycobilisomes of
Synechococcus sp. PCC 7002. Analyses of the wild-type strain and a phycocyanin-
less mutant constructed by interposon mutagenesis.
A; Reference number: A60691; MUID: 90314662; PMID: 2164365
A; Accession: E60691
```

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A; Residues: 1-11 <BRY>
C; Comment: This protein, one of the eleven components detected in this species
of the phycobilisome that helps to trap light energy for photosystem II, does
not carry a chromophore.
C; Keywords: photosystem II
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
            2; Conservative
                                                                  0; Gaps
                                                                              0;
  Matches
                                0; Mismatches
                                                  0; Indels
            9 MR 10
Qу
              11
Db
            1 MR 2
RESULT 23
s33519
probable secreted protein - Acholeplasma laidlawii (fragment)
C; Species: Acholeplasma laidlawii
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text change 22-Oct-1999
C; Accession: S33519
R; Boyer, M.J.; Jarhede, T.K.; Tegman, V.; Wieslander, A.
submitted to the EMBL Data Library, June 1993
A; Description: Sequence regions from Acholeplasma laidlawii which restore export
of beta-lactamase in Escherichia coli.
A: Reference number: S33518
A; Accession: S33519
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <BOY>
A; Cross-references: EMBL: Z22875; NID: g311706; PIDN: CAA80495.1; PID: g311708
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
             2; Conservative
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
                               0; Mismatches
Qу
            5 KK 6
              11
Db
            2 KK 3
RESULT 24
T06383
hypothetical protein - soybean
C; Species: Glycine max (soybean)
C;Date: 30-Apr-1999 #sequence revision 30-Apr-1999 #text change 11-May-2000
C; Accession: T06383
R; Dewey, R.E.; Wilson, R.F.; Novitzky, W.P.; Goode, J.H.
Plant Cell 6, 1495-1507, 1994
A; Title: The AAPT1 gene of soybean complements a cholinephosphotransferase-
deficient mutant of yeast.
A; Reference number: Z06169; MUID: 95086383; PMID: 7994181
A; Accession: T06383
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: mRNA
A; Residues: 1-11 <DEW>
```

A; Molecule type: protein

```
A; Cross-references: EMBL: U12735; NID: g530086; PIDN: AAA67718.1; PID: g530087
A; Experimental source: strain Dare; seed
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
            2; Conservative 0; Mismatches
                                                                              0;
                                                   0; Indels
                                                                  0; Gaps
  Matches
            8 KM 9
Qу
              11
Db
            2 KM 3
RESULT 25
s19775
wound-induced protein - tomato (fragment)
C; Species: Lycopersicon esculentum (tomato)
C;Date: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text change 09-Sep-1997
C; Accession: S19775
R; Parsons, B.L.
submitted to the EMBL Data Library, May 1991
A; Reference number: S19773
A; Accession: S19775
A; Molecule type: mRNA
A; Residues: 1-11 < PAR>
A;Cross-references: EMBL:X59884; NID:g19323; PID:g19324
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
            2; Conservative
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
                                 0; Mismatches
            5 KK 6
Qу
              11
            5 KK 6
Db
RESULT 26
S41747
chaperonin 10 homolog - potato (fragment)
C; Species: Solanum tuberosum (potato)
C;Date: 19-Mar-1997 #sequence revision 29-Aug-1997 #text change 07-May-1999
C; Accession: S41747
R; Burt, W.J.E.; Leaver, C.J.
FEBS Lett. 339, 139-141, 1994
A; Title: Identification of a chaperonin-10 homologue in plant mitochondria.
A; Reference number: S41747; MUID: 94148071; PMID: 7906228
A; Accession: S41747
A; Molecule type: protein
A; Residues: 1-11 <BUR>
A; Experimental source: mitochondrion
C; Keywords: mitochondrion; molecular chaperone
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
                               0; Mismatches
                                                                              0;
                                                    0;
            2; Conservative
                                                       Indels
                                                                  0; Gaps
            3 GG 4
Qy
              11
```

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RESULT 27
A38590
transforming protein (Ddras) - slime mold (Dictyostelium discoideum) (fragment)
C; Species: Dictyostelium discoideum
C; Date: 18-Oct-1991 #sequence revision 18-Oct-1991 #text change 30-Sep-1993
C; Accession: A38590
R; Esch, R.K.; Firtel, R.A.
Genes Dev. 5, 9-21, 1991
A; Title: cAMP and cell sorting control the spatial expression of a
developmentally essential cell-type-specific ras gene in Dictyostelium.
A; Reference number: A38590; MUID: 91115102; PMID: 1703508
A; Accession: A38590
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <ESC>
A; Cross-references: GB:Z11804; GB:K02114; GB:X58190
                                  Score 2; DB 2; Length 11;
  Query Match
                           18.2%;
                           100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
                                                                               0;
                                                        Indels
                                                                   0; Gaps
             2; Conservative
                                 0; Mismatches
            3 GG 4
Qy
              | \cdot |
           10 GG 11
Db
RESULT 28
A61512
variant surface glycoprotein MITat 1.7 - Trypanosoma brucei (fragment)
C; Species: Trypanosoma brucei
C; Date: 28-Oct-1994 #sequence revision 28-Oct-1994 #text change 07-May-1999
C; Accession: A61512
R; Holder, A.A.; Cross, G.A.M.
Mol. Biochem. Parasitol. 2, 135-150, 1981
A; Title: Glycopeptides from variant surface glycoproteins of Trypanosoma brucei.
C-terminal location of antigenically cross-reacting carbohydrate moieties.
A; Reference number: A61512; MUID: 81172836; PMID: 6163983
A; Accession: A61512
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <HOL>
C; Keywords: glycoprotein
                                  Score 2; DB 2; Length 11;
                           18.2%;
  Query Match
  Best Local Similarity
                           100.0%; Pred. No. 3.4e+04;
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
  Matches
             2; Conservative
                                  0; Mismatches
            1 AE 2
Qу
              II
            3 AE 4
Db
```

RESULT 29 A35594

```
buccalin - California sea hare
C; Species: Aplysia californica (California sea hare)
C;Date: 14-Sep-1990 #sequence revision 14-Sep-1990 #text_change 24-Jun-1993
C; Accession: A35594
R; Cropper, E.C.; Miller, M.W.; Tenenbaum, R.; Kolks, M.A.G.; Kupfermann, I.;
Weiss, K.R.
Proc. Natl. Acad. Sci. U.S.A. 85, 6177-6181, 1988
A; Title: Structure and action of buccalin: a modulatory neuropeptide localized
to an identified small cardioactive peptide-containing cholinergic motor neuron
of Aplysia californica.
A; Reference number: A35594; MUID: 88320404; PMID: 3413086
A; Accession: A35594
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <CRO>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
                                                                              0;
  Matches
             2; Conservative
                                 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
            3 GG 4
Qу
              | |
Db
            9 GG 10
RESULT 30
A60656
perisulfakinin - American cockroach
C; Species: Periplaneta americana (American cockroach)
C;Date: 14-May-1993 #sequence_revision 14-May-1993 #text change 11-Jul-1997
C; Accession: A60656
R; Veenstra, J.A.
Neuropeptides 14, 145-149, 1989
A; Title: Isolation and structure of two gastrin/CCK-like neuropeptides from the
American cockroach homologous to the leucosulfakinins.
A; Reference number: A60656; MUID: 90137190; PMID: 2615921
A; Accession: A60656
A: Molecule type: protein
A; Residues: 1-11 <VEE>
C; Comment: This neuropeptide stimulates hindgut contractions.
C; Keywords: amidated carboxyl end; neuropeptide; sulfoprotein
F;6/Binding site: sulfate (Tyr) (covalent) #status experimental
F;11/Modified site: amidated carboxyl end (Phe) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
             2; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            9 MR 10
Qу
              11
            9 MR 10
Db
RESULT 31
S65395
chemical-sense-related lipophilic-ligand-binding protein - fruit fly (Drosophila
melanogaster) (fragment)
```

```
C; Species: Drosophila melanogaster
C;Date: 28-Oct-1996 #sequence revision 13-Mar-1997 #text change 07-May-1999
C; Accession: S65395
R;Ozaki, M.; Morisaki, K.; Idei, W.; Ozaki, K.; Tokunaga, F.
Eur. J. Biochem. 230, 298-308, 1995
A; Title: A putative lipophilic stimulant carrier protein commonly found in the
taste and olfactory systems. A unique member of the pheromone-binding protein
superfamily.
A; Reference number: S65394; MUID: 95324537; PMID: 7601113
A; Accession: S65395
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <OZA>
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
             2; Conservative
Qу
            1 AE 2
              11
           10 AE 11
Db
RESULT 32
I41978
calliFMRFamide 9 - bluebottle fly (Calliphora vomitoria)
C; Species: Calliphora vomitoria
C;Date: 30-Sep-1993 #sequence revision 30-Sep-1993 #text change 17-Mar-1999
C; Accession: I41978
R; Duve, H.; Johnsen, A.H.; Sewell, J.C.; Scott, A.G.; Orchard, I.; Rehfeld,
J.F.; Thorpe, A.
Proc. Natl. Acad. Sci. U.S.A. 89, 2326-2330, 1992
A; Title: Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH-2
neuropeptides (designated calliFMRFamides) from the blowfly Calliphora
vomitoria.
A; Reference number: A41978; MUID: 92196111; PMID: 1549595
A: Accession: I41978
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <DUV>
C; Keywords: amidated carboxyl end; neuropeptide
F;11/Modified site: amidated carboxyl end (Phe) #status experimental
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
  Matches
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            9 MR 10
Qу
              11
Db
            9 MR 10
RESULT 33
D37196
bradykinin-potentiating peptide 4 - island jararaca
C; Species: Bothrops insularis (island jararaca)
C;Date: 14-Feb-1992 #sequence revision 01-Dec-1992 #text change 05-Aug-1994
```

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C; Accession: D37196
R; Cintra, A.C.O.; Vieira, C.A.; Giglio, J.R.
J. Protein Chem. 9, 221-227, 1990
A; Title: Primary structure and biological activity of bradykinin potentiating
peptides from Bothrops insularis snake venom.
A; Reference number: A37196; MUID: 90351557; PMID: 2386615
A; Accession: D37196
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <CIN>
C; Keywords: pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            3 GG 4
              11
Dh
            2 GG 3
RESULT 34
I65231
CCK-B gastrin receptor isoform - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 29-May-1998 #sequence revision 29-May-1998 #text change 21-Jul-2000
C; Accession: I65231
R; Miyake, A.
Biochem. Biophys. Res. Commun. 208, 230-237, 1995
A; Title: A truncated isoform of human CCK-B/gastrin receptor generated by
alternative usage of a novel exon.
A; Reference number: 152307; MUID: 95194412; PMID: 7887934
A; Accession: 165231
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: mRNA
A; Residues: 1-11 < RES>
A;Cross-references: GB:S76072; NID:g913752; PIDN:AAB33740.1; PID:g913753
C; Genetics:
A; Gene: CCK-B
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            3 GG 4
Qу
Db
            4 GG 5
RESULT 35
PT0249
Ig heavy chain CRD3 region (clone 2-109A) - human (fragment)
C; Species: Homo sapiens (man)
C; Date: 30-Sep-1993 #sequence revision 30-Sep-1993 #text change 16-Aug-1996
C; Accession: PT0249
R; Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
```

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J. Exp. Med. 173, 395-407, 1991
A; Title: Preferential utilization of specific immunoglobulin heavy chain
diversity and joining segments in adult human peripheral blood B lymphocytes.
A; Reference number: PT0222; MUID:91108337; PMID:1899102
A; Accession: PT0249
A; Molecule type: DNA
A; Residues: 1-11 < YAM>
A; Experimental source: B lymphocyte
C; Keywords: heterotetramer; immunoglobulin
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             2; Conservative
            3 GG 4
Qу
            1 GG 2
Db
RESULT 36
PT0302
Ig heavy chain CRD3 region (clone 5-112) - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text change 16-Aug-1996
C; Accession: PT0302
R; Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A; Title: Preferential utilization of specific immunoglobulin heavy chain
diversity and joining segments in adult human peripheral blood B lymphocytes.
A; Reference number: PT0222; MUID: 91108337; PMID: 1899102
A; Accession: PT0302
A; Molecule type: DNA
A; Residues: 1-11 < YAM>
A; Experimental source: B lymphocyte
C; Keywords: heterotetramer; immunoglobulin
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
            2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0:
            3 GG 4
Qу
            2 GG 3
Db
RESULT 37
PH1343
Ig heavy chain DJ region (clone C100-91) - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence revision 30-Sep-1993 #text change 07-May-1999
C; Accession: PH1343
R; Wasserman, R.; Galili, N.; Ito, Y.; Reichard, B.A.; Shane, S.; Rovera, G.
J. Exp. Med. 176, 1577-1581, 1992
A; Title: Predominance of fetal type DJH joining in young children with B
precursor lymphoblastic leukemia as evidence for an in utero transforming event.
A; Reference number: PH1302; MUID: 93094761; PMID: 1460419
A; Accession: PH1343
```

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A; Residues: 1-11 <WAS>
C; Keywords: heterotetramer; immunoglobulin
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
                                                                              0;
             2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
            3 GG 4
Qу
              11
Db
            1 GG 2
RESULT 38
S51732
T-cell receptor alpha chain joining region - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 07-May-1995 #sequence revision 01-Sep-1995 #text change 05-Nov-1999
C; Accession: S51732
R; Durinovic-Bello, I.; Steinle, A.; Ziegler, A.G.; Schendel, D.J.
submitted to the EMBL Data Library, November 1993
A; Reference number: S51732
A; Accession: S51732
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-11 < DUR>
A; Cross-references: EMBL: Z28343; NID: g607116; PIDN: CAA82197.1; PID: g607117
C; Keywords: T-cell receptor
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             2; Conservative
Qy
            4 GK 5
              7 GK 8
Db
RESULT 39
S60354
retinal oxidase - rabbit (fragment)
C; Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 24-Auq-1996 #sequence revision 13-Mar-1997 #text change 13-Mar-1997
C; Accession: S60354
R; Huang, D.Y.; Ichikawa, Y.
Biochim. Biophys. Acta 1243, 431-436, 1995
A; Title: Identification of essential lysyl and cysteinyl residues, and the amino
acid sequence at the substrate-binding site of retinal oxidase.
A; Reference number: S60354; MUID: 95244596; PMID: 7727518
A; Accession: S60354
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <HUA>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
                                                                  0; Gaps
             2; Conservative 0; Mismatches
                                                   0; Indels
  Matches
```

A; Molecule type: DNA

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3 GG 4
Qу
              \mathbf{I}
Db
            1 GG 2
RESULT 40
PN0044
protein kinase C inhibitor I - mouse (fragment)
C; Species: Mus musculus (house mouse)
C; Date: 29-Oct-1997 #sequence revision 29-Oct-1997 #text change 23-Jan-1998
C; Accession: PN0044
R; Kato, H.
Kawasaki Igakkaishi 22, 245-259, 1996
A; Title: Analysis of proteins isolated by two dimensional electrophoresis of
mouse neuroblastoma cells.
A; Reference number: PN0041
A; Accession: PN0044
A; Molecule type: protein
A; Residues: 1-11 <KAT>
A; Experimental source: neuroblastoma cell
C; Comment: The molecular mass is 13,900 and the pI is 6.36. The amino-terminus
is blocked.
C; Keywords: brain
  Query Match
                           18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                   0; Gaps
                                                                               0;
            3 GG 4
Qу
              11
            8 GG 9
Db
RESULT 41
PT0209
T-cell receptor alpha chain V-J region (4-1-L.6) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 30-May-1997
C; Accession: PT0209
R; Nakano, N.; Kikutani, H.; Nishimoto, H.; Kishimoto, T.
J. Exp. Med. 173, 1091-1097, 1991
A; Title: T cell receptor V gene usage of islet beta cell-reactive T cells is not
restricted in non-obese diabetic mice.
A; Reference number: PT0209; MUID: 91217621; PMID: 1902501
A; Accession: PT0209
A; Molecule type: mRNA
A; Residues: 1-11 < NAK>
C; Keywords: T-cell receptor
  Query Match
                           18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
             2; Conservative
                               0; Mismatches
                                                                   0; Gaps
                                                                               0;
                                                    0; Indels
            2 EG 3
Qу
```

Db

4 EG 5

```
RESULT 42
PT0218
T-cell receptor beta chain V-J region (7-10-D.3) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 30-May-1997
C; Accession: PT0218
R; Nakano, N.; Kikutani, H.; Nishimoto, H.; Kishimoto, T.
J. Exp. Med. 173, 1091-1097, 1991
A; Title: T cell receptor V gene usage of islet beta cell-reactive T cells is not
restricted in non-obese diabetic mice.
A; Reference number: PT0209; MUID: 91217621; PMID: 1902501
A; Accession: PT0218
A; Molecule type: mRNA
A; Residues: 1-11 < NAK>
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
                              0; Mismatches
                                                                  0; Gaps
                                                                               0;
                                                    0; Indels
             2; Conservative
  Matches
            3 GG 4
Qy
              11
            6 GG 7
Db
RESULT 43
I41946
T-cell receptor gamma chain (5t.1) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C; Date: 03-Feb-1994 #sequence revision 03-Feb-1994 #text change 07-May-1999
C; Accession: I41946
R; Whetsell, M.; Mosley, R.L.; Whetsell, L.; Schaefer, F.V.; Miller, K.S.; Klein,
J.R.
Mol. Cell. Biol. 11, 5902-5909, 1991
A; Title: Rearrangement and junctional-site sequence analyses of T-cell receptor
gamma genes in intestinal intraepithelial lymphocytes from murine athymic
chimeras.
A; Reference number: A41946; MUID: 92049316; PMID: 1658619
A; Accession: I41946
A; Status: preliminary; not compared with conceptual translation
A; Molecule type: DNA
A; Residues: 1-11 <WHE>
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
                                                                               0;
                                  0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
  Matches
             2; Conservative
            3 GG 4
Qy
              11
Db
            5 GG 6
```

RESULT 44 C49037

```
TcR gamma V-J region - mouse (fragment)
C; Species: Mus musculus (house mouse)
C; Date: 21-Jan-1994 #sequence revision 18-Nov-1994 #text change 05-Nov-1999
C; Accession: C49037
R; Ezquerra, A.; Wilde, D.B.; McConnell, T.J.; Sturmhofel, K.; Valas, R.B.;
Shevach, E.M.; Coligan, J.E.
Eur. J. Immunol. 22, 491-498, 1992
A; Title: Mouse autoreactive gamma/delta T cells. II. Molecular characterization
of the T cell receptor.
A; Reference number: A49037; MUID: 92164730; PMID: 1311262
A; Accession: C49037
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <EZQ>
A;Cross-references: GB:S90639; NID:g246292; PIDN:AAB21549.1; PID:g246293
A; Experimental source: dendritic epidermal T-cell lines
A; Note: sequence extracted from NCBI backbone (NCBIN: 90639, NCBIP: 90645)
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
                               0; Mismatches
                                                                  0; Gaps
                                                                              0;
                                                    0; Indels
  Matches
            2; Conservative
            3 GG 4
Qу
              11
            6 GG 7
Db
RESULT 45
PD0441
translation elongation factor TU-like protein P43, mitochondrial - mouse
(fragment)
C: Species: Mus musculus (house mouse)
C;Date: 21-Aug-1998 #sequence revision 21-Aug-1998 #text change 21-Aug-1998
C; Accession: PD0441
R; Kawakami, T.; Uchida, T.; Sakai, T.; Kamo, M.; Morimasa, T.; Tsugita, A.
submitted to JIPID, August 1998
A; Description: Proteome analysis of mouse brain.
A; Reference number: PD0441
A; Accession: PD0441
A; Molecule type: protein
A; Residues: 1-11 <KAW>
A; Experimental source: striatum
C; Keywords: mitochondrion
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%;
  Best Local Similarity
                                   Pred. No. 3.4e+04;
                                                    0; Indels
             2; Conservative
                                 0; Mismatches
                                                                  0;
                                                                      Gaps
                                                                               0;
  Matches
            5 KK 6
Qу
              5 KK 6
Db
RESULT 46
I77447
urinary protein - mouse (fragment)
C; Species: Mus musculus (house mouse)
```

```
C;Date: 02-Aug-1996 #sequence revision 02-Aug-1996 #text change 05-Nov-1999
C; Accession: I77447; I77448
R; Held, W.A.; Gallagher, J.F.; Hohman, C.M.; Kuhn, N.J.; Sampsell, B.M.; Hughes,
R.G.
Mol. Cell. Biol. 7, 3705-3712, 1987
A; Title: Identification and characterization of functional genes encoding the
mouse major urinary proteins.
A; Reference number: I57627; MUID: 88065510; PMID: 2824995
A; Accession: I77447
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 < RES>
A; Cross-references: GB: M17815; NID: g202301; PIDN: AAA40541.1; PID: g202302
A; Accession: I77448
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <RE2>
A; Cross-references: GB: M17816; NID: g202303; PIDN: AAA40542.1; PID: g202304
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
                               0; Mismatches
                                                                               0;
             2; Conservative
                                                    0; Indels
                                                                  0; Gaps
            8 KM 9
Qy
            2 KM 3
Db
RESULT 47
S65377
cytochrome-c oxidase (EC 1.9.3.1) chain VIa-H, cardiac - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 28-Oct-1996 #sequence revision 13-Mar-1997 #text change 16-Jul-1999
C; Accession: S65377
R; Schaegger, H.; Noack, H.; Halangk, W.; Brandt, U.; von Jagow, G.
Eur. J. Biochem. 230, 235-241, 1995
A; Title: Cytochrome-c oxidase in developing rat heart. Enzymic properties and
amino-terminal sequences suggest identity of the fetal heart and the adult liver
isoform.
A; Reference number: S65372; MUID: 95324529; PMID: 7601105
A; Accession: S65377
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <SCH>
C; Keywords: cardiac muscle; heart; oxidoreductase
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
             2; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                   0;
                                                                      Gaps
  Matches
            3 GG 4
Qу
              \perp
            8 GG 9
Db
```

RESULT 48 S78422

```
ribosomal protein RS20, mitochondrial [validated] - rat (tentative sequence)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 25-Feb-1998 #sequence revision 13-Mar-1998 #text change 21-Jul-2000
C:Accession: S78422
R; Goldschmidt-Reisin, S.; Graack, H.R.
submitted to the Protein Sequence Database, February 1998
A; Reference number: S78411
A; Accession: S78422
A; Molecule type: protein
A; Residues: 1-11 <GOL>
A; Note: the protein is designated as mitochondrial ribosomal protein S20
C; Keywords: mitochondrion; protein biosynthesis; ribosome
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
                                                                              0;
  Matches
             2; Conservative 0; Mismatches 0;
                                                       Indels
                                                                  0; Gaps
            9 MR 10
Qу
              Db
            1 MR 2
RESULT 49
PH0947
T-cell receptor beta chain V-D-J region (clone A2) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0947
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0947
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: myelin basic protein fragment-reactive T-cell, recovered
from experimentally induced allergic encephalomyelitis
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
  Matches
            2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            3 GG 4
Qγ
              11
            6 GG 7
Db
RESULT 50
I52304
gene rSSTR4 protein - rat (fragment)
C; Species: Rattus sp. (rat)
C;Date: 29-May-1998 #sequence revision 29-May-1998 #text change 17-Mar-1999
C; Accession: I52304
R; Xu, Y.; Bruno, J.F.; Berelowitz, M.
```

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Biochem. Biophys. Res. Commun. 206, 935-941, 1995
A; Title: Characterization of the proximal promoter region of the rat
somatostatin receptor gene, SSTR4.
A; Reference number: I52304; MUID: 95134278; PMID: 7832807
A; Accession: I52304
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <RES>
A; Cross-references: GB: S75475; NID: q914315
C; Genetics:
A; Gene: rSSTR4
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0:
Qу
            3 GG 4
              10 GG 11
Db
RESULT 51
A34243
H-hyosophorin - Japanese flounder (fragment)
C; Species: Paralichthys olivaceus (Japanese flounder)
C; Date: 07-Sep-1990 #sequence revision 07-Sep-1990 #text change 12-Feb-1999
C; Accession: A34243
R; Seko, A.; Kitajima, K.; Iwasaki, M.; Inoue, S.; Inoue, Y.
J. Biol. Chem. 264, 15922-15929, 1989
A; Title: Structural studies of fertilization-associated carbohydrate-rich
glycoproteins (Hyosophorin) isolated from the fertilized and unfertilized eggs
of flounder, Paralichthys olivaceus. Presence of a novel penta-antennary N-
linkedglycan chain in the tandem repeating glycopeptide unit of hyosophorin.
A; Reference number: A34243; MUID: 89380184; PMID: 2777771
A; Accession: A34243
A; Molecule type: protein
A; Residues: 1-11 <SEK>
A; Note: 3-Ala, 4-Ala, 5-Pro or Gln, and 6-Val were also found
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
             2; Conservative
  Matches
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            3 GG 4
Qу
              11
Db
            5 GG 6
RESULT 52
A61575
Trimeresurus serine proteinase (EC 3.4.21.-) - Sakishima habu (fragment)
N; Alternate names: hemorrhagic toxin
C; Species: Trimeresurus elegans (Sakishima habu)
C;Date: 20-Oct-1994 #sequence_revision 06-Jan-1995 #text change 06-Jan-1995
C; Accession: A61575
R; Nikai, T.; Komori, Y.; Imai, K.; Sugihara, H.
Int. J. Biochem. 23, 73-78, 1991
```

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A; Title: Isolation and characterization of hemorrhagic toxin from the venom of
Trimeresurus elegans.
A; Reference number: A61575; MUID: 91216327; PMID: 2022298
A; Accession: A61575
A; Molecule type: protein
A; Residues: 1-11 <NIK>
C; Keywords: hydrolase; serine proteinase; venom
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 3.4e+04;
  Best Local Similarity
  Matches
            2; Conservative 0; Mismatches 0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
QУ
            3 GG 4
              11
Db
            3 GG 4
RESULT 53
S19015
hypothetical protein 11 ruvC-yebC intergenic region - Escherichia coli
C; Species: Escherichia coli
C; Date: 15-Oct-1999 #sequence revision 15-Oct-1999 #text_change 15-Oct-1999
C; Accession: S19015
R; Sharples, G.J.; Lloyd, R.G.
J. Bacteriol. 173, 7711-7715, 1991
A; Title: Resolution of Holliday junctions in Escherichia coli: identification of
the ruvC gene product as a 19-kilodalton protein.
A; Reference number: S19013; MUID: 92041688; PMID: 1657895
A; Accession: S19015
A; Molecule type: DNA
A; Residues: 1-11 <SHA>
A; Cross-references: EMBL: X59551; NID: q42172; PIDN: CAA42127.1; PID: q42174
C; Comment: This is the hypothetical translation of a sequence that was not
reported as a coding sequence in the complete genome.
  Query Match
                          18.2%; Score 2; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
             2; Conservative 0; Mismatches
                                                                              0:
                                                 0; Indels
                                                                  0; Gaps
            9 MR 10
Qу
              11
            1 MR 2
Db
RESULT 54
I54081
retinoic acid receptor alpha, exon 3 (mistranslated) - human (fragment)
C; Species: Homo sapiens (man)
C; Date: 04-Jun-1999 #sequence revision 04-Jun-1999 #text change 28-Jun-1999
C; Accession: I54081
R; Dong, S.; Geng, J.P.; Tong, J.H.; Wu, Y.; Cai, J.R.; Sun, G.L.; Chen, S.R.;
Wang, Z.Y.; Larsen, C.J.; Berger, R.
Genes Chromosomes Cancer 6, 133-139, 1993
A; Title: Breakpoint clusters of the PML gene in acute promyelocytic leukemia:
primary structure of the reciprocal products of the PML-RARA gene in a patient
with t(15;17).
A; Reference number: 154081; MUID: 93222087; PMID: 7682097
```

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A; Status: translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 < DON>
A; Cross-references: GB: S57794; NID: q299073; PIDN: AAD13888.1; PID: q4261588
A; Note: the translation is from an incorrect reading frame
C; Genetics:
A; Gene: GDB: RARA
A; Cross-references: GDB:120337; OMIM:180240
A; Map position: 17q12-17q12
  Query Match
                          18.2%; Score 2; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+04;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
Qу
           10 RA 11
              11
            5 RA 6
Db
RESULT 55
XAVIBH
bradykinin-potentiating peptide - halys viper
N; Alternate names: BPP
C; Species: Agkistrodon halys (halys viper)
C; Date: 30-Sep-1988 #sequence revision 30-Sep-1988 #text change 05-Aug-1994
C; Accession: JC0002
R; Chi, C.W.; Wang, S.Z.; Xu, L.G.; Wang, M.Y.; Lo, S.S.; Huang, W.D.
Peptides 6, 339-342, 1985
A; Title: Structure-function studies on the bradykinin potentiating peptide from
Chinese snake venom (Agkistrodon halys Pallas).
A; Reference number: JC0002; MUID: 86177022; PMID: 3008123
A; Accession: JC0002
A; Molecule type: protein
A; Residues: 1-11 <CHI>
C; Comment: Because this peptide both inhibits the activity of the angiotensin-
converting enzyme and enhances the action of bradykinin, it is an
antihypertensive agent.
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; antihypertensive;
bradykinin; pyroglutamic acid; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2e+05;
  Matches
             1; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            3 G 3
Qу
Db
            2 G 2
RESULT 56
XASNBA
bradykinin-potentiating peptide B - mamushi
C; Species: Agkistrodon blomhoffi (mamushi)
C;Date: 13-Jul-1981 #sequence_revision 13-Jul-1981 #text change 08-Dec-1995
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A; Accession: I54081

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R; Kato, H.; Suzuki, T.
Proc. Jpn. Acad. 46, 176-181, 1970
A; Reference number: A01254
A; Accession: A01254
A; Molecule type: protein
A; Residues: 1-11 <KAT>
A; Note: the sequence of the natural peptide was confirmed by the synthesis and
analysis of a peptide having the identical structure and biological properties
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; bradykinin; pyroglutamic
acid: venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2e+05;
            1; Conservative
                               0; Mismatches
                                                 0; Indels
                                                                              0;
                                                                  0; Gaps
            3 G 3
Qу
            2 G 2
Db
RESULT 57
ECLO2M
tachykinin II - migratory locust
C; Species: Locusta migratoria (migratory locust)
C; Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 08-Dec-1995
C; Accession: S08266
R; Schoofs, L.; Holman, G.M.; Hayes, T.K.; Nachman, R.J.; de Loof, A.
FEBS Lett. 261, 397-401, 1990
A; Title: Locustatachykinin I and II, two novel insect neuropeptides with
homology to peptides of the vertebrate tachykinin family.
A; Reference number: S08265; MUID: 90184489; PMID: 2311766
A; Accession: S08266
A; Molecule type: protein
A; Residues: 1-11 <SCH>
C; Superfamily: tachykinin
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Arg) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2e+05;
                                0; Mismatches
 Matches
            1; Conservative
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
Qy
            1 A 1
             - 1
Dh
            1 A 1
RESULT 58
SPHO
substance P - horse
C; Species: Equus caballus (domestic horse)
C;Date: 23-Oct-1981 #sequence revision 23-Oct-1981 #text_change 23-Aug-1996
C; Accession: A01558
R; Studer, R.O.; Trzeciak, A.; Lergier, W.
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C; Accession: A01254

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Helv. Chim. Acta 56, 860-866, 1973
A; Title: Isolierung und Aminosaeuresequenz von Substanz P aus Pferdedarm.
A; Reference number: A01558
A; Accession: A01558
A; Molecule type: protein
A; Residues: 1-11 <STU>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone
F:11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2e+05;
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
           10 R 10
            1 R 1
Dh
RESULT 59
EOOCC
eledoisin - curled octopus
C; Species: Eledone cirrosa, Ozaena cirrosa (curled octopus)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 20-Mar-1998
C; Accession: B01561; A01561
R; Anastasi, A.; Erspamer, V.
Arch. Biochem. Biophys. 101, 56-65, 1963
A; Title: The isolation and amino acid sequence of eledoisin, the active
endecapeptide of the posterior salivary glands of Eledone.
A; Reference number: A01561
A; Accession: B01561
A; Molecule type: protein
A; Residues: 1-11 < ANA>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone; pyroglutamic acid; salivary gland;
secretagogue; vasodilator; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                0; Mismatches
  Matches
             1; Conservative
                                                                              0;
                                                   0; Indels
                                                                  0; Gaps
Qу
            5 K 5
Db
            4 K 4
RESULT 60
A60654
substance P - guinea pig
C; Species: Cavia porcellus (quinea pig)
C; Date: 14-May-1993 #sequence revision 27-Jun-1994 #text change 08-Dec-1995
C; Accession: A60654
R; Murphy, R.
Neuropeptides 14, 105-110, 1989
A; Title: Primary amino acid sequence of guinea-pig substance P.
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A; Reference number: A60654; MUID: 90044685; PMID: 2478925
A; Accession: A60654
A; Molecule type: protein
A; Residues: 1-11 <MUR>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2e+05;
             1; Conservative 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
           10 R 10
Qу
Db
            1 R 1
RESULT 61
EOOC
eledoisin - musky octopus
C; Species: Eledone moschata, Ozaena moschata (musky octopus)
C;Date: 13-Jul-1981 #sequence revision 13-Jul-1981 #text change 20-Mar-1998
C; Accession: A01561
R; Anastasi, A.; Erspamer, V.
Arch. Biochem. Biophys. 101, 56-65, 1963
A; Title: The isolation and amino acid sequence of eledoisin, the active
endecapeptide of the posterior salivary glands of Eledone.
A; Reference number: A01561
A; Accession: A01561
A; Molecule type: protein
A; Residues: 1-11 < ANA>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone; pyroglutamic acid; salivary gland;
secretagogue; vasodilator; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2e+05;
  Matches
            1; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0:
            5 K 5
Qy
Db
            4 K 4
RESULT 62
LFTWWE
probable trpEG leader peptide - Thermus aquaticus
C; Species: Thermus aquaticus
C; Date: 30-Jun-1991 #sequence revision 30-Jun-1991 #text change 16-Jul-1999
C; Accession: S03315
R; Sato, S.; Nakada, Y.; Kanaya, S.; Tanaka, T.
Biochim. Biophys. Acta 950, 303-312, 1988
A; Title: Molecular cloning and nucleotide sequence of Thermus thermophilus HB8
trpE and trpG.
A; Reference number: S03315; MUID: 89000781; PMID: 2844259
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A; Molecule type: DNA
A; Residues: 1-11 <SAT>
A; Cross-references: EMBL: X07744; NID: q48261; PIDN: CAA30565.1; PID: q48262
A; Note: the source is designated as Thermus thermophilus HB8
C; Genetics:
A; Gene: trpL
C; Superfamily: probable trpEG leader peptide
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2e+05;
  Matches
             1; Conservative
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Db
            1 M 1
RESULT 63
G42762
proteasome endopeptidase complex (EC 3.4.25.1) subunit 13 - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C; Date: 04-Mar-1993 #sequence revision 18-Nov-1994 #text change 17-Feb-2003
C; Accession: G42762
R; Dick, L.R.; Moomaw, C.R.; Pramanik, B.C.; DeMartino, G.N.; Slaughter, C.A.
Biochemistry 31, 7347-7355, 1992
A; Title: Identification and localization of a cysteinyl residue critical for the
trypsin-like catalytic activity of the proteasome.
A; Reference number: A42762; MUID: 92378961; PMID: 1510924
A; Accession: G42762
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <DIC>
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C; Superfamily: multicatalytic endopeptidase complex chain C9
C; Keywords: hydrolase
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            5 K 5
Qу
            8 K 8
Dh
RESULT 64
S68392
H+-transporting two-sector ATPase (EC 3.6.3.14) chain I - Chlamydomonas
reinhardtii chloroplast (fragment)
N; Alternate names: ATP synthase chain I
C; Species: chloroplast Chlamydomonas reinhardtii
C; Date: 04-Dec-1997 #sequence revision 12-Dec-1997 #text change 03-Jun-2002
C; Accession: S68392
R; Fiedler, H.R.; Schmid, R.; Leu, S.; Shavit, N.; Strotmann, H.
FEBS Lett. 377, 163-166, 1995
```

A; Accession: S03315

```
A; Title: Isolation of CF(0)CF(1) from Chlamydomonas reinhardtii cw15 and the N-
terminal amino acid sequences of the CF(0)CF(1) subunits.
A; Reference number: S68388; MUID: 96128220; PMID: 8543042
A; Accession: S68392
A; Molecule type: protein
A; Residues: 1-11 <FIE>
A; Experimental source: strain CW15
C; Genetics:
A; Genome: chloroplast
C; Superfamily: H+-transporting ATP synthase protein 6
C; Keywords: ATP biosynthesis; chloroplast; hydrolase; membrane-associated
complex; thylakoid
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                                                                  0; Gaps
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            2 E 2
Qy
            1 E 1
Db
RESULT 65
B49164
chromogranin-B - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C; Date: 19-Dec-1993 #sequence revision 18-Nov-1994 #text change 31-Oct-1997
C; Accession: B49164
R; Nielsen, E.; Welinder, B.S.; Madsen, O.D.
Endocrinology 129, 3147-3156, 1991
A;Title: Chromogranin-B, a putative precursor of eight novel rat glucagonoma
peptides through processing at mono-, di-, or tribasic residues.
A; Reference number: A49164; MUID: 92063871; PMID: 1954895
A; Accession: B49164
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <NIE>
A; Note: sequence extracted from NCBI backbone (NCBIP: 66370)
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Qy
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Db
            4 E 4
RESULT 66
JN0023
substance P - chicken
C; Species: Gallus gallus (chicken)
C; Date: 07-Sep-1990 #sequence revision 07-Sep-1990 #text change 11-Jul-1997
C; Accession: JN0023
R; Conlon, J.M.; Katsoulis, S.; Schmidt, W.E.; Thim, L.
Regul. Pept. 20, 171-180, 1988
```

```
A; Title: [Arg3] substance P and neurokinin A from chicken small intestine.
A; Reference number: JN0023; MUID: 88204263; PMID: 2452461
A; Accession: JN0023
A; Molecule type: protein
A; Residues: 1-11 <CON>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
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Db
            9 G 9
RESULT 67
s32575
ribosomal protein S2, plastid - squawroot plastid (fragment)
C; Species: plastid Conopholis americana (squawroot)
C; Date: 19-Mar-1997 #sequence revision 25-Apr-1997 #text change 13-Aug-1999
C; Accession: S32575
R; Taylor, G.W.; Wolfe, K.H.; Morden, C.W.; dePamphilis, C.W.; Palmer, J.D.
Curr. Genet. 20, 515-518, 1991
A; Title: Lack of a functional plastid tRNA(Cys) gene is associated with loss of
photosynthesis in a lineage of parasitic plants.
A; Reference number: S32575; MUID: 92145776; PMID: 1723664
A; Accession: S32575
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <TAY>
A; Cross-references: EMBL: X64567; NID: q11275; PIDN: CAA45868.1; PID: q11276
C; Genetics:
A; Gene: rps2
A; Genome: plastid
C; Superfamily: Escherichia coli ribosomal protein S2
C; Keywords: plastid; protein biosynthesis; ribosome
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Db
           11 E 11
RESULT 68
A40693
transgelin - sheep (fragment)
C; Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C; Date: 03-May-1994 #sequence revision 03-May-1994 #text change 31-Oct-1997
C; Accession: A40693
R; Shapland, C.; Hsuan, J.J.; Totty, N.F.; Lawson, D.
J. Cell Biol. 121, 1065-1073, 1993
```

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A; Title: Purification and properties of transgelin: a transformation and shape
change sensitive actin-gelling protein.
A; Reference number: A40693; MUID: 93273790; PMID: 8501116
A; Accession: A40693
A; Molecule type: protein
A; Residues: 1-11 <SHA>
A; Experimental source: aorta
C; Comment: This protein gels actin and is down regulated by transformation or
loss of cell adherence in culture.
C; Superfamily: smooth muscle protein SM22; calponin repeat homology; smooth
muscle protein SM22 homology
C; Keywords: actin binding; cytoskeleton
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Db
            1 K 1
RESULT 69
A38841
rhodopsin homolog - squid (Watasenia scintillans) (fragment)
N; Alternate names: visual pigment protein
C; Species: Watasenia scintillans (sparkling enope)
C;Date: 17-Jul-1992 #sequence revision 17-Jul-1992 #text change 31-Oct-1997
C; Accession: A38841
R; Seidou, M.; Kubota, I.; Hiraki, K.; Kito, Y.
Biochim. Biophys. Acta 957, 318-321, 1988
A; Title: Amino acid sequence of the retinal binding site of squid visual
pigment.
A; Reference number: PT0063; MUID: 89051045; PMID: 3191148
A; Accession: A38841
A; Molecule type: protein
A; Residues: 1-11 <SEI>
C; Superfamily: vertebrate rhodopsin
C; Keywords: chromoprotein; retinal
F;3/Binding site: retinal (Lys) (covalent) #status experimental
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Db
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RESULT 70
S00616
parasporal crystal protein, wax moth-specific - Bacillus thuringiensis (strain
galleriae 11-67) (fragment)
N; Alternate names: delta-endotoxin; parasporal crystal protein positive chain
C; Species: Bacillus thuringiensis
C; Date: 31-Dec-1988 #sequence revision 31-Dec-1988 #text change 13-Sep-1996
```

```
C; Accession: S00616
R; Chestukhina, G.G.; Kostina, L.I.; Zalunin, I.A.; Khodova, O.M.; Stepanov, V.M.
FEBS Lett. 232, 249-251, 1988
A; Title: Bacillus thuringiensis ssp. galleriae simultaneously produces two
delta-endotoxins differing strongly in primary structure and entomocidal
A; Reference number: S00615
A; Accession: S00616
A; Molecule type: protein
A; Residues: 1-11 <CHE>
C; Comment: This toxin is effective against the larvae of Galleria melonella
(greater wax moth) but not those of Lymantria dispar (gypsy moth).
C; Superfamily: parasporal crystal protein
C; Keywords: delta-endotoxin
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Qу
Db
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RESULT 71
S09074
cytochrome P450-4b - rat (fragment)
N; Alternate names: cytochrome P450K-5
N; Contains: oxidoreductase (EC 1.-.-.)
C; Species: Rattus norvegicus (Norway rat)
C; Date: 23-Apr-1993 #sequence revision 23-Apr-1993 #text change 05-Mar-1999
C; Accession: S09074
R; Imaoka, S.; Terano, Y.; Funae, Y.
Arch. Biochem. Biophys. 278, 168-178, 1990
A; Title: Changes in the amount of cytochrome P450s in rat hepatic microsomes
with starvation.
A; Reference number: S09072; MUID: 90210577; PMID: 2321956
A; Accession: S09074
A; Molecule type: protein
A; Residues: 1-11 < IMA>
C; Superfamily: unassigned cytochrome P450; cytochrome P450 homology
C; Keywords: heme; microsome; monooxygenase; oxidoreductase; transmembrane
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RESULT 72
A57458
gene Gax protein - mouse (fragment)
C; Species: Mus sp. (mouse)
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C;Date: 02-Jul-1996 #sequence revision 02-Jul-1996 #text change 15-Oct-1999
C; Accession: A57458
R; Andres, V.; Fisher, S.; Wearsch, P.; Walsh, K.
Mol. Cell. Biol. 15, 4272-4281, 1995
A; Title: Regulation of Gax homeobox gene transcription by a combination of
positive factors including myocyte-specific enhancer factor 2.
A; Reference number: A57458; MUID: 95349593; PMID: 7623821
A; Accession: A57458
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <RES>
A; Cross-references: GB: S79168; NID: q1050991
C; Genetics:
A; Gene: Gax
C; Superfamily: unassigned homeobox proteins; homeobox homology
C; Keywords: DNA binding; homeobox; nucleus; transcription regulation
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Qу
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Db
RESULT 73
A26930
ermG leader peptide 1 - Bacillus sphaericus
C; Species: Bacillus sphaericus
C;Date: 08-Mar-1989 #sequence revision 08-Mar-1989 #text change 24-Sep-1999
C; Accession: A26930
R; Monod, M.; Mohan, S.; Dubnau, D.
J. Bacteriol. 169, 340-350, 1987
A; Title: Cloning and analysis of ermG, a new macrolide-lincosamide-streptogramin
B resistance element from Bacillus sphaericus.
A; Reference number: A91840; MUID: 87083389; PMID: 3025178
A; Accession: A26930
A; Molecule type: DNA
A; Residues: 1-11 <MON>
A; Cross-references: GB:M15332; NID:g142881; PIDN:AAA22417.1; PID:g142882
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Qу
Db
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RESULT 74
D60409
kassinin-like peptide K-III - frog (Pseudophryne guentheri)
C; Species: Pseudophryne quentheri
C;Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 02-Sep-2000
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C; Accession: D60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: D60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F:11/Modified site: amidated carboxyl end (Met) #status experimental
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Qу
Dh
            6 E 6
RESULT 75
F60409
substance P-like peptide II - frog (Pseudophryne guentheri)
C; Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 02-Sep-2000
C; Accession: F60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: F60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
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Qy
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Db
Search completed: April 8, 2004, 15:49:28
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Job time : 9.61538 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:47:33; Search time 30.3077 Seconds

(without alignments)

95.432 Million cell updates/sec

Title: US-09-787-443A-19

Perfect score: 11

Sequence: 1 AEGGKKKKMRA 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 1073127 seqs, 262937947 residues

Word size:

Total number of hits satisfying chosen parameters: 9223

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: Published Applications AA:*

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Pred. No. is the number of results predicted by chance to have a

and is derived by analysis of the total score distribution.

SUMMARIES

score greater than or equal to the score of the result being printed,

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Result Query

No. Score Match Length DB ID

Description

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             27.3
                      11
                          10
                              US-09-931-325A-158
                                                          Sequence 158, App
50
         3
             27.3
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                              US-09-876-904A-25
                                                          Sequence 25, Appl
51
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             27.3
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                          10
                              US-09-876-904A-77
                                                          Sequence 77, Appl
52
         3
             27.3
                      11
                          10
                              US-09-876-904A-273
                                                          Sequence 273, App
53
         3
             27.3
                      11
                          10
                              US-09-876-904A-354
                                                          Sequence 354, App
54
         3
             27.3
                      11
                          10
                              US-09-876-904A-373
                                                          Sequence 373, App
55
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             27.3
                      11
                          10
                              US-09-876-904A-544
                                                          Sequence 544, App
56
             27.3
                      11
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                              US-09-876-904A-597
                                                          Sequence 597, App
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57	3	27.3	11	10	US-09-852-910-238	Sequence 238, App
58	3	27.3	11	10	US-09-972-656-7	Sequence 7, Appli
59	3	27.3	11	10	US-09-893-878-17	Sequence 17, Appl
60	3	27.3	11	10	US-09-930-915A-172	Sequence 172, App
61	3	27.3	11	10	US-09-930-915A-195	Sequence 195, App
62	3	27.3	11	10	US-09-933-767-1184	Sequence 1184, Ap
63	3	27.3	11	11	US-09-896-095-17	Sequence 17, Appl
64	3	27.3	11	12	US-10-361-270-18	Sequence 18, Appl
65	3	27.3	11	12	US-10-458-860-37	Sequence 37, Appl
66	3	27.3	11	12	US-10-653-595-458	Sequence 458, App
67	3	27.3	11	12	US-10-601-837-222	Sequence 222, App
68	3	27.3	11	12	US-10-668-400-17	Sequence 17, Appl
69	3	27.3	11	12	US-10-668-400-18	Sequence 18, Appl
70	3	27.3	11	12	US-10-668-400-19	Sequence 19, Appl
71	3	27.3	11	13	US-10-039-645-37	Sequence 37, Appl
72	3	27.3	11	14	US-10-165-015-32	Sequence 32, Appl
73	3	27.3	11	14	US-10-108-795-26	Sequence 26, Appl
74	3	27.3	11	14	US-10-108-795-29	Sequence 29, Appl
75	3	27.3	11	14	US-10-039-831-11	Sequence 11, Appl
76	3	27.3	11	14	US-10-039-831-12	Sequence 12, Appl
77	3	27.3	11	14	US-10-039-831-18	Sequence 18, Appl
78	3	27.3	11		US-10-115-365-26	Sequence 26, Appl
79	3	27.3	11	14	US-10-115-365-29	Sequence 29, Appl
80	3	27.3	11	14	US-10-146-574-27	Sequence 27, Appl
81	3	27.3	11	14	US-10-116-391-10	Sequence 10, Appl
82	3	27.3	11	14	US-10-139-084-37	Sequence 37, Appl
83	3	27.3	11	14	US-10-023-282-1184	Sequence 1184, Ap
84	3	27.3	11	14	US-10-044-692-98	Sequence 98, Appl
85	3	27.3	11	14	US-10-044-539-98	Sequence 98, Appl
86	3	27.3	11	14	US-10-149-326-12	Sequence 12, Appl
87	3	27.3	11	14	US-10-213-512-253	Sequence 253, App
88	3	27.3	11	14	US-10-174-613-46	Sequence 46, Appl
89	3	27.3	11	14	US-10-251-364-12	Sequence 12, Appl
90	3	27.3	11	14	US-10-087-286-8	Sequence 8, Appli
91	3	27.3	11	14	US-10-148-786A-14	Sequence 14, Appl
92	3	27.3	11	14	US-10-140-700A-14 US-10-283-423-126	Sequence 126, App
93	3	27.3	. 11	14	US-10-203-423-120 US-10-072-419-37	Sequence 37, Appl
94	3	27.3	11	14	US-10-072-419-37 US-10-116-212-26	
95	3	27.3	11	14	US-10-116-212-29	Sequence 26, Appl
96	3	27.3	11	14		Sequence 29, Appl
9 <del>0</del> 97	3	27.3	11	14	US-10-286-457-349 US-10-286-457-634	Sequence 349, App
98	3	27.3	11	$\frac{14}{14}$	US-10-161-660-29	Sequence 634, App
99	. 3	27.3	11	$\frac{14}{14}$		Sequence 29, Appl
100	3				US-10-020-269-34	Sequence 34, Appl
TOO	3	27.3	11	14	US-10-213-821-126	Sequence 126, App

## ALIGNMENTS

## RESULT 1

US-09-876-904A-362

- ; Sequence 362, Application US/09876904A
- ; Publication No. US20030072794A1
- ; GENERAL INFORMATION:
- ; APPLICANT: BOULIKAS, TENI ; TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND THERAPEUTIC

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TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
; TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
 PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
 NUMBER OF SEO ID NOS: 629
 SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 362
   LENGTH: 11
   TYPE: PRT
;
   ORGANISM: Mus sp.
   FEATURE:
   OTHER INFORMATION: Murine LEF-1.
US-09-876-904A-362
                         45.5%; Score 5; DB 10; Length 11;
  Query Match
 Best Local Similarity 100.0%; Pred. No. 1.4e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels
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                                                               0; Gaps
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             +11111
           1 GKKKK 5
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US-09-876-904A-363
; Sequence 363, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
; TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
; TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
; FILE REFERENCE: TB-2002.00
; CURRENT APPLICATION NUMBER: US/09/876,904A
; CURRENT FILING DATE: 2001-06-08
; PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 363
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
   FEATURE:
   OTHER INFORMATION: Human TCF-1 alpha.
US-09-876-904A-363
                         45.5%; Score 5; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.4e+02;
  Matches 5; Conservative 0; Mismatches
                                               0; Indels
                                                               0; Gaps
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4 GKKKK 8
Qу
              1111
            1 GKKKK 5
RESULT 3
US-09-846-342-1
; Sequence 1, Application US/09846342
; Patent No. US20020160422A1
; GENERAL INFORMATION:
; APPLICANT: Jackowski, George
  TITLE OF INVENTION: BIOPOLYMER MARKER INDICATIVE OF DISEASE STATE HAVING A
MOLECULAR WEIGHT
; TITLE OF INVENTION: OF 1077 DALTONS
 FILE REFERENCE: 2132.026
  CURRENT APPLICATION NUMBER: US/09/846,342
  CURRENT FILING DATE: 2001-04-30
 NUMBER OF SEQ ID NOS: 1
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
   LENGTH: 11
;
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-846-342-1
                          36.4%; Score 4; DB 9; Length 11;
 Query Match
                          100.0%; Pred. No. 1.3e+03;
 Best Local Similarity
            4; Conservative 0; Mismatches 0;
                                                                 0; Gaps
                                                                              0;
 Matches
                                                      Indels
            1 AEGG 4
Qу
             ++++
            5 AEGG 8
Db
RESULT 4
US-09-805-301-5
; Sequence 5, Application US/09805301
; Patent No. US20020173456A1
   GENERAL INFORMATION:
        APPLICANT: Smith, Louis C.
                    Sparrow, James T.
;
                    Hauer, Jochen
                    Mims, Martha P.
;
        TITLE OF INVENTION: LIPOPHILIC PEPTIDES FOR
                             MACROMOLECULE DELIVERY
;
        NUMBER OF SEQUENCES: 139
        CORRESPONDENCE ADDRESS:
;
              ADDRESSEE: Lyon & Lyon
              STREET: 633 West Fifth Street
                      Suite 4700
              CITY: Los Angeles
              STATE: California
              COUNTRY: U.S.A.
              ZIP: 90071-2066
        COMPUTER READABLE FORM:
              MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
                           storage
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COMPUTER: IBM Compatible
              OPERATING SYSTEM: IBM P.C. DOS 6.0
              SOFTWARE: Word Perfect 6.1
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/805,301
              FILING DATE: 12-Mar-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/584,043
              FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: Warburg, Richard J.
              REGISTRATION NUMBER: 32,327
              REFERENCE/DOCKET NUMBER: 217/189
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (213) 489-1600
              TELEFAX: (213) 955-0440
              TELEX: 67-3510
;
    INFORMATION FOR SEQ ID NO: 5:
;
         SEQUENCE CHARACTERISTICS:
;
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 5:
US-09-805-301-5
                          36.4%; Score 4; DB 9; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.3e+03;
                               0; Mismatches
                                                   0; Indels
                                                                              0;
  Matches
            4; Conservative
                                                                  0;
                                                                      Gaps
            5 KKKK 8
Qу
              1111
            1 KKKK 4
Db
RESULT 5
US-09-805-301-43
; Sequence 43, Application US/09805301
 Patent No. US20020173456A1
    GENERAL INFORMATION:
         APPLICANT: Smith, Louis C.
                    Sparrow, James T.
                    Hauer, Jochen
                    Mims, Martha P.
         TITLE OF INVENTION: LIPOPHILIC PEPTIDES FOR
                             MACROMOLECULE DELIVERY
         NUMBER OF SEQUENCES: 139
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Lyon & Lyon
              STREET: 633 West Fifth Street
                      Suite 4700
              CITY: Los Angeles
              STATE: California
              COUNTRY: U.S.A.
              ZIP: 90071-2066
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COMPUTER READABLE FORM:
             MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
                          storage
              COMPUTER: IBM Compatible
              OPERATING SYSTEM: IBM P.C. DOS 6.0
              SOFTWARE: Word Perfect 6.1
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/805,301
              FILING DATE: 12-Mar-2001
             CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: 08/584,043
             FILING DATE: <Unknown>
        ATTORNEY/AGENT INFORMATION:
             NAME: Warburg, Richard J.
             REGISTRATION NUMBER: 32,327
             REFERENCE/DOCKET NUMBER: 217/189
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: (213) 489-1600
             TELEFAX: (213) 955-0440
              TELEX: 67-3510
    INFORMATION FOR SEQ ID NO: 43:
        SEQUENCE CHARACTERISTICS:
;
             LENGTH: 11 amino acids
             TYPE: amino acid
              STRANDEDNESS: single
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
        FEATURE:
                                   "Xaa" stands for any naturally
             OTHER INFORMATION:
             occurring amino acid and
             analogues thereof.
        SEQUENCE DESCRIPTION: SEQ ID NO: 43:
US-09-805-301-43
 Query Match
                        36.4%; Score 4; DB 9; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.3e+03;
 Matches 4; Conservative 0; Mismatches 0; Indels
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Qy
           5 KKKK 8
             1 KKKK 4
Db
RESULT 6
US-09-805-301-99
; Sequence 99, Application US/09805301
; Patent No. US20020173456A1
    GENERAL INFORMATION:
        APPLICANT: Smith, Louis C.
                   Sparrow, James T.
                   Hauer, Jochen
                   Mims, Martha P.
        TITLE OF INVENTION: LIPOPHILIC PEPTIDES FOR
                            MACROMOLECULE DELIVERY
        NUMBER OF SEQUENCES: 139
        CORRESPONDENCE ADDRESS:
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```
ADDRESSEE: Lyon & Lyon
              STREET: 633 West Fifth Street
                     Suite 4700
              CITY: Los Angeles
              STATE: California
              COUNTRY: U.S.A.
              ZIP: 90071-2066
         COMPUTER READABLE FORM:
             MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
                          storage
              COMPUTER: IBM Compatible
              OPERATING SYSTEM: IBM P.C. DOS 6.0
              SOFTWARE: Word Perfect 6.1
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/805,301
              FILING DATE: 12-Mar-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
             APPLICATION NUMBER: 08/584,043
             FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
             NAME: Warburg, Richard J.
              REGISTRATION NUMBER: 32,327
              REFERENCE/DOCKET NUMBER: 217/189
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (213) 489-1600
              TELEFAX: (213) 955-0440
             TELEX: 67-3510
    INFORMATION FOR SEQ ID NO: 99:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 99:
US-09-805-301-99
  Query Match
                         36.4%; Score 4; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.3e+03;
                                                                0; Gaps
 Matches 4; Conservative 0; Mismatches 0; Indels
                                                                            0;
           5 KKKK 8
Qy
             Db
           1 KKKK 4
RESULT 7
US-09-882-291-55
; Sequence 55, Application US/09882291
; Publication No. US20030040472A1
; GENERAL INFORMATION:
; APPLICANT: Zealand Pharmaceuticals A/S
  TITLE OF INVENTION: No. US20030040472Alel Peptide Conjugates
; FILE REFERENCE: 007-2001
; CURRENT APPLICATION NUMBER: US/09/882,291
; CURRENT FILING DATE: 2001-06-15
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NUMBER OF SEQ ID NOS: 77
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 55
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
sequence
US-09-882-291-55
  Query Match
                         36.4%; Score 4; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.3e+03;
 Matches
            4; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
            5 KKKK 8
Qу
             +1+1
            6 KKKK 9
Db
RESULT 8
US-09-882-291-64
; Sequence 64, Application US/09882291
; Publication No. US20030040472A1
; GENERAL INFORMATION:
  APPLICANT: Zealand Pharmaceuticals A/S
  TITLE OF INVENTION: No. US20030040472Alel Peptide Conjugates
  FILE REFERENCE: 007-2001
  CURRENT APPLICATION NUMBER: US/09/882,291
  CURRENT FILING DATE: 2001-06-15
; NUMBER OF SEQ ID NOS: 77
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 64
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
sequence
US-09-882-291-64
                         36.4%; Score 4; DB 10; Length 11;
  Query Match
                         100.0%; Pred. No. 1.3e+03;
  Best Local Similarity
                                                                0; Gaps
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  Matches
            4; Conservative 0; Mismatches 0;
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            5 KKKK 8
Qу
              1111
            6 KKKK 9
Db
RESULT 9
US-09-876-904A-364
; Sequence 364, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
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TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
 TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
 PRIOR APPLICATION NUMBER: US 60/210,925
 PRIOR FILING DATE: 2000-06-09
 NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 364
   LENGTH: 11
   TYPE: PRT
;
   ORGANISM: Homo sapiens
   FEATURE:
   OTHER INFORMATION: Human TCF-1
US-09-876-904A-364
                         36.4%; Score 4; DB 10; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1.3e+03;
           4; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
 Matches
            4 GKKK 7
Qу
             \mathbf{I}
           1 GKKK 4
Db
RESULT 10
US-09-791-524-15
; Sequence 15, Application US/09791524
; Publication No. US20030143209A1
; GENERAL INFORMATION:
; APPLICANT: Aventis Pharmaceuticals Products Inc.
; TITLE OF INVENTION:
                        Targeted Adenovirus Vectors For Delivery Of
Heterologous Genes
; FILE REFERENCE:
                    A3319A
  CURRENT APPLICATION NUMBER: US/09/791,524
;
  CURRENT FILING DATE: 2001-02-22
; PRIOR APPLICATION NUMBER:
                              60/09828
; PRIOR FILING DATE:
                       1998-08-27
; NUMBER OF SEQ ID NOS:
                          150
 SOFTWARE:
              PatentIn version 3.0
; SEQ ID NO 15
   LENGTH: 11
;
   TYPE: PRT
   ORGANISM: Adenovirus
US-09-791-524-15
  Query Match
                         36.4%; Score 4; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.3e+03;
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 Matches
           4; Conservative 0; Mismatches 0; Indels
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            5 KKKK 8
Qу
             -1111
Db
            3 KKKK 6
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RESULT 11
US-09-077-439A-16
 ; Sequence 16, Application US/09077439A
 ; Publication No. US20030202989A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Collier, R. John
   APPLICANT: Blanke, Steven R.
   APPLICANT: Milne, Jill C.
   APPLICANT: Benson, Ericka L.
   APPLICANT: Ballard, Jimmy D.
 ;
   APPLICANT: Starnbach, Michael N.
   TITLE OF INVENTION: Use of Toxin Peptides and/or Affinity
 ;
   TITLE OF INVENTION: Handles for Delivering Compounds into Cells
   FILE REFERENCE: 00246/187002
   CURRENT APPLICATION NUMBER: US/09/077,439A
   CURRENT FILING DATE: 1999-04-08
  PRIOR APPLICATION NUMBER: PCT/US96/20463
   PRIOR FILING DATE: 1996-12-13
   PRIOR APPLICATION NUMBER: US 60/019,275
   PRIOR FILING DATE: 1996-06-07
   PRIOR APPLICATION NUMBER: US 60/008,518
   PRIOR FILING DATE: 1995-12-13
  NUMBER OF SEQ ID NOS: 26
   SOFTWARE: FastSEQ for Windows Version 4.0
 ; SEQ ID NO 16
    LENGTH: 11
    TYPE: PRT
 ;
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Synthetic Protein
 US-09-077-439A-16
   Query Match
                          36.4%; Score 4; DB 11; Length 11;
   Best Local Similarity 100.0%; Pred. No. 1.3e+03;
  Matches
            4; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
             5 KKKK 8
Qγ
              +111
             1 KKKK 4
 Db
 RESULT 12
US-10-156-527-5
 ; Sequence 5, Application US/10156527
; Publication No. US20040063628A1
 ; GENERAL INFORMATION:
 ; APPLICANT: PICCARIELLO, THOMAS
 ; APPLICANT: KIRK, RANDAL
   APPLICANT: OLON, LAWRENCE
   TITLE OF INVENTION: ACTIVE AGENT DELIVERY SYSTEMS AND METHODS FOR PROTECTING
AND
 ; TITLE OF INVENTION: ADMINISTERING ACTIVE AGENTS
 ; FILE REFERENCE: 54719.000063
 ; CURRENT APPLICATION NUMBER: US/10/156,527
 ; CURRENT FILING DATE: 2002-05-29
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PRIOR APPLICATION NUMBER: 09/986,426
   PRIOR FILING DATE: 2001-11-08
   PRIOR APPLICATION NUMBER: 09/411,238
   PRIOR FILING DATE: 1999-10-04
   PRIOR APPLICATION NUMBER: 09/265,415
   PRIOR FILING DATE: 1999-03-10
   PRIOR APPLICATION NUMBER: 09/642,820
   PRIOR FILING DATE: 2000-08-22
   PRIOR APPLICATION NUMBER: 09/987,458
   PRIOR FILING DATE: 2001-11-14
   PRIOR APPLICATION NUMBER: 09/988,071
   PRIOR FILING DATE: 2001-11-16
   PRIOR APPLICATION NUMBER: 09/988,034
;
   PRIOR FILING DATE: 2001-11-16
   PRIOR APPLICATION NUMBER: 09/933,708
  PRIOR FILING DATE: 2001-08-22
  PRIOR APPLICATION NUMBER: PCT/US01/43089
   PRIOR FILING DATE: 2001-11-14
   PRIOR APPLICATION NUMBER: PCT/US01/43117
   PRIOR FILING DATE: 2001-11-16
;
   Remaining Prior Application data removed - See File Wrapper or PALM.
;
   NUMBER OF SEQ ID NOS: 23
   SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 5
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence: Synthetic
    OTHER INFORMATION: peptide
US-10-156-527-5
  Query Match
                          36.4%; Score 4; DB 12; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.3e+03;
  Matches
             4; Conservative 0; Mismatches 0; Indels
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                                                                               0;
            5 KKKK 8
Qy
              \mathbf{I} \mathbf{I} \mathbf{I} \mathbf{I}
            1 KKKK 4
RESULT 13
US-10-156-527-12
; Sequence 12, Application US/10156527
; Publication No. US20040063628A1
; GENERAL INFORMATION:
  APPLICANT: PICCARIELLO, THOMAS
  APPLICANT: KIRK, RANDAL
  APPLICANT: OLON, LAWRENCE
   TITLE OF INVENTION: ACTIVE AGENT DELIVERY SYSTEMS AND METHODS FOR PROTECTING
AND
   TITLE OF INVENTION: ADMINISTERING ACTIVE AGENTS
   FILE REFERENCE: 54719.000063
   CURRENT APPLICATION NUMBER: US/10/156,527
  CURRENT FILING DATE: 2002-05-29
; PRIOR APPLICATION NUMBER: 09/986,426
; PRIOR FILING DATE: 2001-11-08
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PRIOR APPLICATION NUMBER: 09/411,238
   PRIOR FILING DATE: 1999-10-04
   PRIOR APPLICATION NUMBER: 09/265,415
   PRIOR FILING DATE: 1999-03-10
   PRIOR APPLICATION NUMBER: 09/642,820
   PRIOR FILING DATE: 2000-08-22
   PRIOR APPLICATION NUMBER: 09/987,458
   PRIOR FILING DATE: 2001-11-14
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   PRIOR FILING DATE: 2001-11-16
   PRIOR APPLICATION NUMBER: 09/988,034
   PRIOR FILING DATE: 2001-11-16
   PRIOR APPLICATION NUMBER: 09/933,708
   PRIOR FILING DATE: 2001-08-22
   PRIOR APPLICATION NUMBER: PCT/US01/43089
   PRIOR FILING DATE: 2001-11-14
   PRIOR APPLICATION NUMBER: PCT/US01/43117
   PRIOR FILING DATE: 2001-11-16
   Remaining Prior Application data removed - See File Wrapper or PALM.
   NUMBER OF SEQ ID NOS: 23
   SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 12
    LENGTH: 11
;
    TYPE: PRT
    ORGANISM: Artificial Sequence
    OTHER INFORMATION: Description of Artificial Sequence: Synthetic
    OTHER INFORMATION: peptide
    FEATURE:
    OTHER INFORMATION: this peptide may encompass 4-11 residues according to the
    OTHER INFORMATION: specification as filed
US-10-156-527-12
  Query Match
                          36.4%; Score 4; DB 12; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.3e+03;
             4; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0;
                                                                     Gaps
                                                                              0;
            5 KKKK 8
Qу
              1 KKKK 4
RESULT 14
US-10-212-499-39
; Sequence 39, Application US/10212499
; Publication No. US20030135036A1
    GENERAL INFORMATION:
         APPLICANT: Lanza, Francois
                    Phillips, David R.
                    Cazenave, Jean-Pierre
         TITLE OF INVENTION: Platelet Glycoprotein V Gene and Uses
         NUMBER OF SEQUENCES: 43
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Morgan Lewis & Bockius LLP
              STREET: 1800 M St., NW
              CITY: Washington
              STATE: DC
```

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COUNTRY: US
              ZIP: 20036
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/10/212,499
              FILING DATE: 06-Aug-2002
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US/09/560,814
              FILING DATE: 2000-04-28
             APPLICATION NUMBER: US 08/089,455
             FILING DATE: 1993-07-09
             APPLICATION NUMBER: US 08/195,006
              FILING DATE: 1994-02-10
              APPLICATION NUMBER: US 08/884,571
              FILING DATE: 1997-06-27
        ATTORNEY/AGENT INFORMATION:
             NAME: Reid G. Adler
              REGISTRATION NUMBER: 30,988
              REFERENCE/DOCKET NUMBER: 44481-5018-04-US
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: 202-467-7000
             TELEFAX: 202-467-7176
   INFORMATION FOR SEQ ID NO: 39:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 11 amino acids
              TYPE: amino acid
             TOPOLOGY: unknown
        MOLECULE TYPE: peptide
        HYPOTHETICAL: NO
        FEATURE:
             NAME/KEY: Peptide
             LOCATION: 1..11
             OTHER INFORMATION: /note= "Amino acid sequence of the
             human fibrinogen (Fg) A-alpha 1 chain thrombin
              cleavage site."
        FEATURE:
             NAME/KEY: Region
              LOCATION: 1..2
             OTHER INFORMATION: /note= "Amino acid residues
             identical to GPV."
        FEATURE:
             NAME/KEY: Region
              LOCATION: 5
              OTHER INFORMATION:
                                 /note= "Amino acid residue
             identical to GPV."
        FEATURE:
             NAME/KEY: Region
              LOCATION: 7..9
             OTHER INFORMATION: /note= "Amino acid residues
              identical to GPV."
         SEQUENCE DESCRIPTION: SEQ ID NO: 39:
US-10-212-499-39
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Best Local Similarity 100.0%; Pred. No. 1.3e+03;
            4; Conservative 0; Mismatches 0; Indels 0;
                                                                    Gaps
                                                                            0;
           1 AEGG 4
Qy
              1111
Db
           1 AEGG 4
RESULT 15
US-10-350-258-7
; Sequence 7, Application US/10350258
; Publication No. US20030139345A1
; GENERAL INFORMATION:
; APPLICANT: MATTHIAS RATH
; TITLE OF INVENTION: SYNTHETIC PEPTIDES AND METHODS FOR TREATING CANCER
INVASION AND METASTASIS
  FILE REFERENCE: 11957/23
  CURRENT APPLICATION NUMBER: US/10/350,258
  CURRENT FILING DATE: 2003-01-22
  PRIOR APPLICATION NUMBER: 60/351,317
  PRIOR FILING DATE: January 23, 2002
; NUMBER OF SEQ ID NOS: 7
 SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 7
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo Sapien
US-10-350-258-7
  Query Match
                         36.4%; Score 4; DB 14; Length 11;
                         100.0%; Pred. No. 1.3e+03;
  Best Local Similarity
  Matches
           4; Conservative 0; Mismatches 0; Indels
                                                                0;
                                                                            0;
                                                                    Gaps
           6 KKKM 9
Qу
             1111
Db
           6 KKKM 9
RESULT 16
US-10-355-975-33
; Sequence 33, Application US/10355975
; Publication No. US20030162277A1
; GENERAL INFORMATION:
  APPLICANT: Immunex Corporation
  APPLICANT: Bird, Timothy A.
  APPLICANT: Virca, G. Duke
  APPLICANT: Martin, Unja
  APPLICANT: Anderson, Dirk M.
  TITLE OF INVENTION: NOVEL MURINE AND HUMAN KINASES
   FILE REFERENCE: 2923-A
   CURRENT APPLICATION NUMBER: US/10/355,975
   CURRENT FILING DATE: 2003-01-30
   PRIOR APPLICATION NUMBER: US/09/579,664B
  PRIOR FILING DATE: 2000-05-26
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 33
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LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: peptide
US-10-355-975-33
 Query Match
                         36.4%; Score 4; DB 14; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.3e+03;
           4; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
 Matches
           5 KKKK 8
Qy
             \pm 1111
Db
           1 KKKK 4
RESULT 17
US-10-082-014-94
; Sequence 94, Application US/10082014
; Publication No. US20030185858A1
; GENERAL INFORMATION:
  APPLICANT: Birkett, Ashley J.
  TITLE OF INVENTION: IMMUNOGENIC HBc CHIMER PARTICLES STABILIZED WITH AN N-
TERMINAL CYSTEINE
  FILE REFERENCE: ICC-130.0 4564/85124
  CURRENT APPLICATION NUMBER: US/10/082,014
; CURRENT FILING DATE: 2002-02-22
; PRIOR APPLICATION NUMBER: 09/930,915
  PRIOR FILING DATE: 2001-08-15
; NUMBER OF SEQ ID NOS: 290
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 94
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Neisseria meningitidis
US-10-082-014-94
 Query Match
                         36.4%; Score 4; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.3e+03;
 Matches
           4; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           6 KKKM 9
Qy
             5 KKKM 8
Db
RESULT 18
US-10-372-076-95
; Sequence 95, Application US/10372076
; Publication No. US20030198645A1
; GENERAL INFORMATION:
; APPLICANT: Page, Mark
  APPLICANT: Friede, Martin
; TITLE OF INVENTION: STABILIZED HBc CHIMER PARTICLES AS THERAPEUTIC VACCINE
FOR
; TITLE OF INVENTION: CHRONIC HEPATITIS
; FILE REFERENCE: 4564/87179
```

```
CURRENT APPLICATION NUMBER: US/10/372,076
  CURRENT FILING DATE: 2003-02-21
  PRIOR APPLICATION NUMBER: 10/080,299
  PRIOR FILING DATE: 2002-02-21
  PRIOR APPLICATION NUMBER: 10/082,014
  PRIOR FILING DATE: 2002-02-22
  NUMBER OF SEQ ID NOS: 308
  SOFTWARE: PatentIn version 3.2
; SEO ID NO 95
   LENGTH: 11
    TYPE: PRT
   ORGANISM: Neisseria meningitidis
US-10-372-076-95
  Query Match
                         36.4%; Score 4; DB 14; Length 11;
                         100.0%; Pred. No. 1.3e+03;
  Best Local Similarity
            4; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
            6 KKKM 9
Qу
              1111
Db
            5 KKKM 8
RESULT 19
US-10-359-363A-46
; Sequence 46, Application US/10359363A
; Publication No. US20030228371A1
; GENERAL INFORMATION:
  APPLICANT: Skinner, James E.
  APPLICANT: Anchin, Jerry M.
  TITLE OF INVENTION: ANTI-INFARCTION MOLECULES
  FILE REFERENCE: 22118.0001U4
  CURRENT APPLICATION NUMBER: US/10/359,363A
  CURRENT FILING DATE: 2003-02-05
  PRIOR APPLICATION NUMBER: 60/429,278
  PRIOR FILING DATE: 2002-11-25
  PRIOR APPLICATION NUMBER: 60/392,133
  PRIOR FILING DATE: 2002-06-28
  PRIOR APPLICATION NUMBER: 60/354,678
; PRIOR FILING DATE: 2002-02-06
; NUMBER OF SEQ ID NOS: 104
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 46
   LENGTH: 11
   TYPE: PRT
;
   ORGANISM: Artificial Sequence
   FEATURE:
;
   OTHER INFORMATION: Description of Artificial Sequence:/No. US20030228371Ale
   OTHER INFORMATION: Synthetic Construct
US-10-359-363A-46
  Query Match
                         36.4%; Score 4; DB 15; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.3e+03;
 Matches
           4; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
Qу
```

```
RESULT 20
US-10-359-363A-47
; Sequence 47, Application US/10359363A
; Publication No. US20030228371A1
; GENERAL INFORMATION:
  APPLICANT: Skinner, James E.
   APPLICANT: Anchin, Jerry M.
   TITLE OF INVENTION: ANTI-INFARCTION MOLECULES
  FILE REFERENCE: 22118.0001U4
   CURRENT APPLICATION NUMBER: US/10/359,363A
   CURRENT FILING DATE: 2003-02-05
  PRIOR APPLICATION NUMBER: 60/429,278
   PRIOR FILING DATE: 2002-11-25
   PRIOR APPLICATION NUMBER: 60/392,133
   PRIOR FILING DATE: 2002-06-28
   PRIOR APPLICATION NUMBER: 60/354,678
   PRIOR FILING DATE: 2002-02-06
;
  NUMBER OF SEQ ID NOS: 104
   SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 47
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence:/No. US20030228371A1e
    OTHER INFORMATION: Synthetic Construct
US-10-359-363A-47
  Query Match
                          36.4%;
                                  Score 4; DB 15; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.3e+03;
                                                                  0;
                                                                      Gaps
 Matches
            4; Conservative
                                0; Mismatches
                                                   0;
                                                      Indels
                                                                              0;
            1 AEGG 4
Qy
              1111
Db
            5 AEGG 8
RESULT 21
US-10-359-363A-48
; Sequence 48, Application US/10359363A
; Publication No. US20030228371A1
; GENERAL INFORMATION:
  APPLICANT: Skinner, James E.
   APPLICANT: Anchin, Jerry M.
   TITLE OF INVENTION: ANTI-INFARCTION MOLECULES
   FILE REFERENCE: 22118.0001U4
   CURRENT APPLICATION NUMBER: US/10/359,363A
   CURRENT FILING DATE: 2003-02-05
   PRIOR APPLICATION NUMBER: 60/429,278
;
   PRIOR FILING DATE: 2002-11-25
   PRIOR APPLICATION NUMBER: 60/392,133
   PRIOR FILING DATE: 2002-06-28
```

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PRIOR APPLICATION NUMBER: 60/354,678
  PRIOR FILING DATE: 2002-02-06
  NUMBER OF SEQ ID NOS: 104
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 48
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence:/No. US20030228371Ale
   OTHER INFORMATION: Synthetic Construct
US-10-359-363A-48
                         36.4%; Score 4; DB 15; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1.3e+03;
           4; Conservative 0; Mismatches
           1 AEGG 4
Qу
             5 AEGG 8
RESULT 22
US-10-359-363A-49
; Sequence 49, Application US/10359363A
; Publication No. US20030228371A1
; GENERAL INFORMATION:
  APPLICANT: Skinner, James E.
  APPLICANT: Anchin, Jerry M.
  TITLE OF INVENTION: ANTI-INFARCTION MOLECULES
  FILE REFERENCE: 22118.0001U4
  CURRENT APPLICATION NUMBER: US/10/359,363A
  CURRENT FILING DATE: 2003-02-05
  PRIOR APPLICATION NUMBER: 60/429,278
  PRIOR FILING DATE: 2002-11-25
  PRIOR APPLICATION NUMBER: 60/392,133
  PRIOR FILING DATE: 2002-06-28
;
  PRIOR APPLICATION NUMBER: 60/354,678
;
  PRIOR FILING DATE: 2002-02-06
  NUMBER OF SEQ ID NOS: 104
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 49
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
;
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence:/No. US20030228371Ale
   OTHER INFORMATION: Synthetic Construct
US-10-359-363A-49
 Query Match
                         36.4%; Score 4; DB 15; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.3e+03;
 Matches
            4; Conservative
                              0; Mismatches 0;
                                                     Indels
                                                                0; Gaps
                                                                            0;
           1 AEGG 4
Qу
```

```
RESULT 23
US-10-359-363A-54
; Sequence 54, Application US/10359363A
; Publication No. US20030228371A1
; GENERAL INFORMATION:
  APPLICANT: Skinner, James E.
  APPLICANT: Anchin, Jerry M.
  TITLE OF INVENTION: ANTI-INFARCTION MOLECULES
  FILE REFERENCE: 22118.0001U4
  CURRENT APPLICATION NUMBER: US/10/359,363A
  CURRENT FILING DATE: 2003-02-05
  PRIOR APPLICATION NUMBER: 60/429,278
  PRIOR FILING DATE: 2002-11-25
  PRIOR APPLICATION NUMBER: 60/392,133
  PRIOR FILING DATE: 2002-06-28
  PRIOR APPLICATION NUMBER: 60/354,678
  PRIOR FILING DATE: 2002-02-06
  NUMBER OF SEQ ID NOS: 104
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 54
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence:/No. US20030228371Ale
   OTHER INFORMATION: Synthetic Construct
US-10-359-363A-54
 Query Match
                          36.4%; Score 4; DB 15; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 1.3e+03;
             4; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0;
                                                                     Gaps
                                                                              0;
            1 AEGG 4
Qу
              1111
            5 AEGG 8
RESULT 24
US-10-359-363A-55
; Sequence 55, Application US/10359363A
; Publication No. US20030228371A1
; GENERAL INFORMATION:
  APPLICANT: Skinner, James E.
  APPLICANT: Anchin, Jerry M.
  TITLE OF INVENTION: ANTI-INFARCTION MOLECULES
  FILE REFERENCE: 22118.0001U4
  CURRENT APPLICATION NUMBER: US/10/359,363A
  CURRENT FILING DATE: 2003-02-05
  PRIOR APPLICATION NUMBER: 60/429,278.
  PRIOR FILING DATE: 2002-11-25
  PRIOR APPLICATION NUMBER: 60/392,133
  PRIOR FILING DATE: 2002-06-28
```

```
PRIOR APPLICATION NUMBER: 60/354,678
  PRIOR FILING DATE: 2002-02-06
  NUMBER OF SEQ ID NOS: 104
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 55
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence:/No. US20030228371Ale
   OTHER INFORMATION: Synthetic Construct
US-10-359-363A-55
 Query Match
                         36.4%; Score 4; DB 15; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.3e+03;
           4; Conservative
                             0; Mismatches
                                                  0;
                                                     Indels
                                                                           0;
           1 AEGG 4
             1111
           5 AEGG 8
RESULT 25
US-10-359-363A-96
; Sequence 96, Application US/10359363A
; Publication No. US20030228371A1
; GENERAL INFORMATION:
 APPLICANT: Skinner, James E.
 APPLICANT: Anchin, Jerry M.
  TITLE OF INVENTION: ANTI-INFARCTION MOLECULES
  FILE REFERENCE: 22118.0001U4
  CURRENT APPLICATION NUMBER: US/10/359,363A
  CURRENT FILING DATE: 2003-02-05
  PRIOR APPLICATION NUMBER: 60/429,278
  PRIOR FILING DATE: 2002-11-25
  PRIOR APPLICATION NUMBER: 60/392,133
  PRIOR FILING DATE: 2002-06-28
  PRIOR APPLICATION NUMBER: 60/354,678
 PRIOR FILING DATE: 2002-02-06
 NUMBER OF SEQ ID NOS: 104
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 96
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence:/No. US20030228371Ale
   OTHER INFORMATION: Synthetic Construct
US-10-359-363A-96
 Query Match
                         36.4%; Score 4; DB 15; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.3e+03;
 Matches 4; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                           0;
           1 AEGG 4
Qγ
```

```
RESULT 26
US-10-359-363A-97
; Sequence 97, Application US/10359363A
; Publication No. US20030228371A1
; GENERAL INFORMATION:
  APPLICANT: Skinner, James E.
  APPLICANT: Anchin, Jerry M.
  TITLE OF INVENTION: ANTI-INFARCTION MOLECULES
  FILE REFERENCE: 22118.0001U4
  CURRENT APPLICATION NUMBER: US/10/359,363A
  CURRENT FILING DATE: 2003-02-05
  PRIOR APPLICATION NUMBER: 60/429,278
  PRIOR FILING DATE: 2002-11-25
  PRIOR APPLICATION NUMBER: 60/392,133
   PRIOR FILING DATE: 2002-06-28
   PRIOR APPLICATION NUMBER: 60/354,678
   PRIOR FILING DATE: 2002-02-06
  NUMBER OF SEQ ID NOS: 104
   SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 97
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence:/No. US20030228371Ale
   OTHER INFORMATION: Synthetic Construct
US-10-359-363A-97
  Query Match
                          36.4%;
                                  Score 4; DB 15; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.3e+03;
                                                                 0;
                                                                             0;
                              0; Mismatches
                                                   0; Indels
                                                                     Gaps
  Matches
             4; Conservative
            1 AEGG 4
Qy
              +111
            5 AEGG 8
Db
RESULT 27
US-10-359-363A-100
; Sequence 100, Application US/10359363A
; Publication No. US20030228371A1
; GENERAL INFORMATION:
  APPLICANT: Skinner, James E.
   APPLICANT: Anchin, Jerry M.
   TITLE OF INVENTION: ANTI-INFARCTION MOLECULES
   FILE REFERENCE: 22118.0001U4
   CURRENT APPLICATION NUMBER: US/10/359,363A
   CURRENT FILING DATE: 2003-02-05
   PRIOR APPLICATION NUMBER: 60/429,278
   PRIOR FILING DATE: 2002-11-25
   PRIOR APPLICATION NUMBER: 60/392,133
   PRIOR FILING DATE: 2002-06-28
```

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PRIOR APPLICATION NUMBER: 60/354,678
   PRIOR FILING DATE: 2002-02-06
  NUMBER OF SEQ ID NOS: 104
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 100
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence:/No. US20030228371Ale
   OTHER INFORMATION: Synthetic Construct
US-10-359-363A-100
  Query Match
                          36.4%; Score 4; DB 15; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.3e+03;
           4; Conservative 0; Mismatches
                                                  0;
                                                     Indels
                                                                             0;
            1 AEGG 4
Qу
              1111
            5 AEGG 8
Db
RESULT 28
US-09-828-592-10
; Sequence 10, Application US/09828592
; Patent No. US20010055591A1
; GENERAL INFORMATION:
; APPLICANT: Walston, Timothy
  APPLICANT: Cooper, Scott
  APPLICANT: Revzaie, Alireza
  TITLE OF INVENTION: ANTITHROMBIN H-HELIX MUTANTS
  FILE REFERENCE: 7869.10USU1
  CURRENT APPLICATION NUMBER: US/09/828,592
  CURRENT FILING DATE: 2001-04-06
; PRIOR APPLICATION NUMBER: 60/195,872
  PRIOR FILING DATE: 2000-04-07
  NUMBER OF SEQ ID NOS: 16
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-828-592-10
                          27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity
                         100.0%; Pred. No. 1.1e+04;
 Matches
            3; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                 0:
                                                                     Gaps
                                                                             0;
Qу
           7 KKM 9
              \pm 111
            9 KKM 11
RESULT 29
US-09-765-527-206
; Sequence 206, Application US/09765527
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; Patent No. US20020006638A1
    GENERAL INFORMATION:
        APPLICANT: Better, Marc D.
        TITLE OF INVENTION: Methods for Recombinant Microbial Production of
;
                            Fusion Proteins and BPI-Derived Peptides
        NUMBER OF SEQUENCES: 265
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
             STREET: 6300 Sears Tower, 233 South Wacker Drive
             CITY: Chicago
             STATE: Illinois
             COUNTRY: United States of America
٠;
             ZIP: 60606-6402
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.25
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/765,527
             FILING DATE: 18-Jan-2001
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: 08/621,803
             FILING DATE: <Unknown>
        ATTORNEY/AGENT INFORMATION:
             NAME: Borun, Michael F.
             REGISTRATION NUMBER: 25,447
             REFERENCE/DOCKET NUMBER: 27129/33199
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: 312/474-6300
             TELEFAX: 312/474-0448
             TELEX: 25-3856
    INFORMATION FOR SEQ ID NO: 206:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 11 amino acids
             TYPE: amino acid
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
        FEATURE:
             NAME/KEY: misc feature
             OTHER INFORMATION: "XMP.350"
        FEATURE:
             NAME/KEY: Modified-site
             LOCATION: C-Terminus
             OTHER INFORMATION: /label= Amidation
             /note= "The C-Terminus is Amidated."
        SEQUENCE DESCRIPTION: SEQ ID NO: 206:
US-09-765-527-206
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+04;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                         0;
           5 KKK 7
Qу
             1 KKK 3
Db
```

```
RESULT 30
US-09-010-714-5
; Sequence 5, Application US/09010714
; Patent No. US20020012942A1
; GENERAL INFORMATION:
   APPLICANT: McCarthy, James B.
   APPLICANT: Furcht, Leo T.
  APPLICANT: Iida, Joji
  TITLE OF INVENTION: POLYPEPTIDES WITH ALPHA 4 INTEGRIN SUBUNIT RELATED
   TITLE OF INVENTION: ACTIVITY
  FILE REFERENCE: 600.332US01
  CURRENT APPLICATION NUMBER: US/09/010,714
   CURRENT FILING DATE: 1998-01-22
; NUMBER OF SEQ ID NOS: 11
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-09-010-714-5
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+04;
  Matches
           3; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
            4 GKK 6
Qу
              \perp
Db
            6 GKK 8
RESULT 31
US-09-811-672-24
; Sequence 24, Application US/09811672
; Patent No. US20020052490A1
; GENERAL INFORMATION:
; APPLICANT: BALL, Tanja
  APPLICANT: VRTALA, Susanne
  APPLICANT: SPERR, Wolfgang
   APPLICANT: VALENT, Peter
  APPLICANT: SUSANI, Markus
  APPLICANT: KRAFT, Dietrich
  APPLICANT: VALENTA, Rudolf
; APPLICANT: LAFFER, Sylvia
  TITLE OF INVENTION: RECOMBINANT ALLERGEN, FRAGMENTS THEREOF, CORRESPONDING
RECOMBINANT DNA
  TITLE OF INVENTION: MOLECULES, VECTORS AND HOSTS CONTAINING THE DNA
MOLECULES, DIAGNOSTIC AND
  TITLE OF INVENTION: THERAPEUTIC USES OF SAID ALLERGENS AND FRAGMENTS
   FILE REFERENCE: 1614-0247P
  CURRENT APPLICATION NUMBER: US/09/811,672
  CURRENT FILING DATE: 2001-03-20
  NUMBER OF SEQ ID NOS: 28
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 24
   LENGTH: 11
   TYPE: PRT
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ORGANISM: Timothy Grass
US-09-811-672-24
 Query Match
                         27.3%; Score 3; DB 9; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.1e+04;
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           3; Conservative 0; Mismatches 0;
                                                      Indels
                                                                 0; Gaps
            2 EGG 4
             5 EGG 7
RESULT 32
US-09-845-667-1
; Sequence 1, Application US/09845667
; Patent No. US20020065221A1
   GENERAL INFORMATION:
        APPLICANT: Cohen, Philip
                   Alessi, Dario
                    Cross, Darren
        TITLE OF INVENTION: CONTROL OF PROTEIN SYNTHESIS, AND SCREENING METHOD
                             FOR AGENTS
        NUMBER OF SEQUENCES: 58
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: Braman & Rogalskyj, LLP
              STREET: P.O. Box 352
              CITY: Canandaigua
              STATE: New York
              COUNTRY: USA
              ZIP: 14424-0352
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.30
        CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/845,667
              FILING DATE: 30-Apr-2001
              CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US 09/091,763
              FILING DATE: 19-JUN-1998
              APPLICATION NUMBER: PCT/GB96/03186
              FILING DATE: 20-DEC-1996
             APPLICATION NUMBER: GB 9526083.2
              FILING DATE: 20-DEC-1995
             APPLICATION NUMBER: GB 9610272.8
              FILING DATE: 16-MAY-1996
              APPLICATION NUMBER: GB 9615066.9
              FILING DATE: 18-JUL-1996
        ATTORNEY/AGENT INFORMATION:
              NAME: Braman, Susan J
              REGISTRATION NUMBER: 34,103
              REFERENCE/DOCKET NUMBER: 002.00041
        TELECOMMUNICATION INFORMATION:
              TELEPHONE: 716-393-3002
              TELEFAX: 716-393-3001
```

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INFORMATION FOR SEQ ID NO: 1:
         SEQUENCE CHARACTERISTICS:
;
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
        MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 1:
US-09-845-667-1
                          27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.1e+04;
            3; Conservative 0; Mismatches 0;
                                                                              0;
                                                       Indels
                                                                 0; Gaps
            1 AEG 3
Qу
              111
            9 AEG 11
RESULT 33
US-09-873-676-6
; Sequence 6, Application US/09873676
; Patent No. US20020077289A1
; GENERAL INFORMATION:
  APPLICANT: MacDonald, Nicholas J.
  APPLICANT: Sim, Kim L.
  TITLE OF INVENTION: Angiostatin and Endostatin Binding Proteins and Methods
of Use
  FILE REFERENCE: 05213-0378 (43170-259333)
  CURRENT APPLICATION NUMBER: US/09/873,676
  CURRENT FILING DATE: 2001-06-04
  PRIOR APPLICATION NUMBER: US 60/209,065
  PRIOR FILING DATE: 2000-06-02
  PRIOR APPLICATION NUMBER: US 60/289,387
  PRIOR FILING DATE: 2001-05-08
  NUMBER OF SEQ ID NOS: 123
  SOFTWARE: PatentIn version 3.1
; SEO ID NO 6
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: synthetic binding peptide
US-09-873-676-6
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+04;
 Matches 3; Conservative
                               0; Mismatches 0; Indels
                                                                              0;
                                                                 0; Gaps
            2 EGG 4
Qу
              \parallel \parallel \parallel
            7 EGG 9
RESULT 34
US-09-873-676-19
; Sequence 19, Application US/09873676
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; Patent No. US20020077289A1
; GENERAL INFORMATION:
  APPLICANT: MacDonald, Nicholas J.
   APPLICANT: Sim, Kim L.
  TITLE OF INVENTION: Angiostatin and Endostatin Binding Proteins and Methods
  FILE REFERENCE: 05213-0378 (43170-259333)
   CURRENT APPLICATION NUMBER: US/09/873,676
   CURRENT FILING DATE: 2001-06-04
  PRIOR APPLICATION NUMBER: US 60/209,065
  PRIOR FILING DATE: 2000-06-02
   PRIOR APPLICATION NUMBER: US 60/289,387
  PRIOR FILING DATE: 2001-05-08
;
  NUMBER OF SEQ ID NOS: 123
   SOFTWARE: PatentIn version 3.1
; SEQ ID NO 19
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: synthetic binding peptide
US-09-873-676-19
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+04;
                                                                  0; Gaps
 Matches
            3; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                              0;
            2 EGG 4
Qу
              \mathbf{I}
Db
            7 EGG 9
RESULT 35
US-09-881-490-181
; Sequence 181, Application US/09881490
; Patent No. US20020077298A1
    GENERAL INFORMATION:
         APPLICANT: Little II, Roger G.
                    Lim, Edward
                    Fadem, Mitchell B.
         TITLE OF INVENTION: Anti-Fungal Peptides
         NUMBER OF SEQUENCES: 211
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: McAndrews, Held & Malloy, Ltd.
              STREET: 500 West Madison Street, 34th FloorDrive
              CITY: Chicago
              STATE: Illinois
              COUNTRY: United States of America
              ZIP: 60661
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/881,490
              FILING DATE: 14-Jun-2001
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PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 09/119,858
              FILING DATE: <Unknown>
              APPLICATION NUMBER: 08/372,105
              FILING DATE: 13-JAN-95
              APPLICATION NUMBER: 08/306,473
              FILING DATE: 15-SEP-94
              APPLICATION NUMBER: 08/273,540
              FILING DATE: 11-JUL-94
              APPLICATION NUMBER: 08/209,762
              FILING DATE: 11-MAR-94
              APPLICATION NUMBER: 08/183,222
              FILING DATE: 14-JAN-94
              APPLICATION NUMBER: 08/093,202
              FILING DATE: 15-JUL-93
              APPLICATION NUMBER: 08/030,644
              FILING DATE: 12-MAR-93
        ATTORNEY/AGENT INFORMATION:
              NAME: McNicholas, Janet M.
              REGISTRATION NUMBER: 32,918
              REFERENCE/DOCKET NUMBER: 100-238/11021US01
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 312/707-8889
              TELEFAX: 312/707-9155
              TELEX: 650 388-1248
    INFORMATION FOR SEQ ID NO: 181:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              TOPOLOGY: linear
        MOLECULE TYPE: peptide
         FEATURE:
              NAME/KEY: misc feature
              OTHER INFORMATION: "XMP.350"
         FEATURE:
              NAME/KEY: Modified-site
              LOCATION: C-Terminus
              OTHER INFORMATION: /label= Amidation
              /note= "The C-Terminus is Amidated"
         SEQUENCE DESCRIPTION: SEQ ID NO: 181:
US-09-881-490-181
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  Best Local Similarity 100.0%; Pred. No. 1.1e+04;
 Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            5 KKK 7
Qу
              111
Db
            1 KKK 3
RESULT 36
US-09-977-831-32
; Sequence 32, Application US/09977831
; Patent No. US20020120100A1
; GENERAL INFORMATION:
; APPLICANT: PACTT, Tech Transfer Office University of Lausanne
```

```
; APPLICANT: Bonny, Christophe
  TITLE OF INVENTION: INTRACELLULAR DELIVERY OF BIOLOGICAL EFFECTORS
; FILE REFERENCE: 20349-512 Transporter peptides
; CURRENT APPLICATION NUMBER: US/09/977,831
  CURRENT FILING DATE: 2001-10-15
   PRIOR APPLICATION NUMBER: U.S.S.N. 60/240,315
  PRIOR FILING DATE: 2000-10-13
; NUMBER OF SEQ ID NOS: 37
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 32
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence: TRANSPORTER
    OTHER INFORMATION: PEPTIDE
US-09-977-831-32
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.1e+04;
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                              0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
            3 GGK 5
Qу
             111
            2 GGK 4
Db
RESULT 37
US-09-966-871-37
; Sequence 37, Application US/09966871
; Patent No. US20020127539A1
; GENERAL INFORMATION:
; APPLICANT: Kopin, Alan S.
  TITLE OF INVENTION: Assays for Identifying Receptors Having
  TITLE OF INVENTION: Alterations in Signaling
; FILE REFERENCE: 00398/512002
  CURRENT APPLICATION NUMBER: US/09/966,871
  CURRENT FILING DATE: 2001-09-28
  PRIOR APPLICATION NUMBER: US 60/236,302
; PRIOR FILING DATE: 2000-09-28
; PRIOR APPLICATION NUMBER: US 60/288,644
; PRIOR FILING DATE: 2001-05-03
; NUMBER OF SEQ ID NOS: 87
 SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 37
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-09-966-871-37
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+04;
                              0; Mismatches 0; Indels
                                                                0; Gaps
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  Matches
           3; Conservative
            4 GKK 6
Qу
             Db
            7 GKK 9
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RESULT 38
US-09-739-068-23
; Sequence 23, Application US/09739068
; Patent No. US20020142297A1
    GENERAL INFORMATION:
         APPLICANT: Bogdanov, Alexei A.
                    Weissleder, Ralph
                    Simonova, Maria
         TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IMAGING
                             GENE EXPRESSION
         NUMBER OF SEQUENCES: 24
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Fish & Richardson P.C.
              STREET: 225 Franklin Street
              CITY: Boston
              STATE: MA
              COUNTRY: US
              ZIP: 02110-2804
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Diskette
              COMPUTER: IBM Compatible
              OPERATING SYSTEM: Windows95
              SOFTWARE: FastSEQ for Windows Version 2.0
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/739,068
              FILING DATE: 18-Dec-2000
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US/09/015,366B
              FILING DATE: 29-JAN-1998
              APPLICATION NUMBER: 60/037,350
              FILING DATE: 31-JAN-1997
         ATTORNEY/AGENT INFORMATION:
              NAME: Fasse, Peter J.
              REGISTRATION NUMBER: 32,983
              REFERENCE/DOCKET NUMBER: 00786/388002
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 617/542-5070
              TELEFAX: 617/542-8906
              TELEX: 200154
    INFORMATION FOR SEQ ID NO: 23:
        SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              TOPOLOGY: linear
        MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 23:
US-09-739-068-23
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.1e+04;
 Matches
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                                                                             0;
Qу
            2 EGG 4
             111
Db
            2 EGG 4
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RESULT 39
US-09-823-829-36
; Sequence 36, Application US/09823829
; Patent No. US20020146697A1
; GENERAL INFORMATION:
   APPLICANT: Yamamoto, Satoshi
   APPLICANT: Nakamura, Shoko
   APPLICANT:
              Suzuki, Makoto
  APPLICANT: Kasai, Hiroaki
   APPLICANT: Hamada, Tohru
   TITLE OF INVENTION: METHOD FOR IDENTIFICATION AND DETECTION OF MICROORGANISMS
   TITLE OF INVENTION: USING GYRASE GENE AS AN INDICATOR
   FILE REFERENCE: 12817-004001
   CURRENT APPLICATION NUMBER: US/09/823,829
   CURRENT FILING DATE: 2001-03-30
   PRIOR APPLICATION NUMBER: US 09/208,688
   PRIOR FILING DATE: 1998-12-10
   PRIOR APPLICATION NUMBER: JP 97/343316
   PRIOR FILING DATE: 1997-12-12
   NUMBER OF SEQ ID NOS: 82
   SOFTWARE: PatentIn version 2.0
 SEQ ID NO 36
   LENGTH: 11
    TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: synthetically generated peptide
US-09-823-829-36
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+04;
            3; Conservative
                              0; Mismatches
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                                                                     Gaps
                                                                             0;
            2 EGG 4
Qу
              | | | |
Db
            7 EGG 9
RESULT 40
US-09-823-829-37
; Sequence 37, Application US/09823829
; Patent No. US20020146697A1
; GENERAL INFORMATION:
  APPLICANT: Yamamoto, Satoshi
  APPLICANT: Nakamura, Shoko
  APPLICANT:
              Suzuki, Makoto
  APPLICANT:
              Kasai, Hiroaki
  APPLICANT:
              Hamada, Tohru
  TITLE OF INVENTION: METHOD FOR IDENTIFICATION AND DETECTION OF MICROORGANISMS
  TITLE OF INVENTION: USING GYRASE GENE AS AN INDICATOR
  FILE REFERENCE: 12817-004001
  CURRENT APPLICATION NUMBER: US/09/823,829
  CURRENT FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: US 09/208,688
  PRIOR FILING DATE: 1998-12-10
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PRIOR APPLICATION NUMBER: JP 97/343316
   PRIOR FILING DATE: 1997-12-12
  NUMBER OF SEQ ID NOS: 82
   SOFTWARE: PatentIn version 2.0
; SEQ ID NO 37
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: synthetically generated peptide
US-09-823-829-37
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+04;
                              0; Mismatches
 Matches
            3; Conservative
                                                   0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            2 EGG 4
Qу
              | | |
            7 EGG 9
Db
RESULT 41
US-09-781-988-17
; Sequence 17, Application US/09781988
; Patent No. US20020150881A1
    GENERAL INFORMATION:
        APPLICANT: Ladner, Robert Charles
;
                    Guterman, Sonia Kosow
; .
                    Roberts, Bruce Lindsay
;
                    Markland, William
                    Ley, Arthur Charles
                    Kent, Rachel Baribault
         TITLE OF INVENTION: Directed Evolution of No. US20020150881A1el
                             Binding Proteins
        NUMBER OF SEQUENCES: 121
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Browdy and Neimark
              STREET: 419 Seventh Street, N.W.
                      Suite 300
              CITY: Washington,
              STATE: DC
              COUNTRY: USA
              ZIP: 20004
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: WORDPERFECT 4.2
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/781,988
              FILING DATE: 14-Feb-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 07/664,989
              FILING DATE: <Unknown>
              APPLICATION NUMBER: 07/487,063
              FILING DATE: 02-MAR-1990
```

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APPLICATION NUMBER: 07/240,160
              FILING DATE: 02-SEP-1988
         ATTORNEY/AGENT INFORMATION:
              NAME: Cooper, Iver P.
              REGISTRATION NUMBER: 28005
              REFERENCE/DOCKET NUMBER: LADNER 7
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 202-628-5197
              TELEFAX: 202-737-3528
    INFORMATION FOR SEQ ID NO: 17:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              TOPOLOGY: linear
         MOLECULE TYPE: protein
         SEQUENCE DESCRIPTION: SEQ ID NO: 17:
US-09-781-988-17
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+04;
             3; Conservative 0; Mismatches
                                                 0; Indels
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                                                                              0;
  Matches
                                                                     Gaps
            1 AEG 3
Qу
              -111
            9 AEG 11
Db
RESULT 42
US-09-969-192-19
; Sequence 19, Application US/09969192
; Patent No. US20020151027A1
    GENERAL INFORMATION:
         APPLICANT: WICKHAM, THOMAS J.
                    ROELVINK, PETRUS W.
                    KOVESDI, IMRE
         TITLE OF INVENTION: TARGETING ADENOVIRUS WITH USE OF
                             CONSTRAINED PEPTIDE MOTIFS
         NUMBER OF SEQUENCES: 80
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Leydig, Voit & Mayer, Ltd.
              STREET: Two Prudential Plaza - 49th Floor
              CITY: Chicago
              STATE: Illinois
              COUNTRY: USA
              ZIP: 60601
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.30
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/969,192
              FILING DATE: 01-Oct-2001
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US 9-455061
              FILING DATE: 06-DEC-1999
              APPLICATION NUMBER: US 9-130225
```

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FILING DATE: 06-AUG-1998
             APPLICATION NUMBER: US 8-701124
              FILING DATE: 21-AUG-1996
        ATTORNEY/AGENT INFORMATION:
             NAME: Hefner, M. Daniel
              REGISTRATION NUMBER: 41,826
              REFERENCE/DOCKET NUMBER: 213564
    INFORMATION FOR SEQ ID NO: 19:
         SEQUENCE CHARACTERISTICS:
;
             LENGTH: 11 amino acids
;
             TYPE: amino acid
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 19:
US-09-969-192-19
 Query Match
                         27.3%; Score 3; DB 9; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.1e+04;
            3; Conservative
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                                                                    Gaps
                                                                            0;
           5 KKK 7
Qу
             \perp
           3 KKK 5
RESULT 43
US-09-071-838-253
; Sequence 253, Application US/09071838
; Patent No. US20020152501A1
  GENERAL INFORMATION:
    APPLICANT: Fischer, Robert L.
    APPLICANT: Ohad, Nir
;
    APPLICANT: Kiyosue, Tomohiro
    APPLICANT: Yadegari, Ramin
    APPLICANT: Margossian, Linda
    APPLICANT: Harada, John
    APPLICANT: Goldberg, Robert B.
    TITLE OF INVENTION: Nucleic Acids That Control Seed and
    TITLE OF INVENTION: Fruit Development in Plants
    NUMBER OF SEQUENCES: 324
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Townsend and Townsend and Crew LLP
      STREET: Two Embarcadero Center, Eighth Floor
      CITY: San Francisco
      STATE: California
      COUNTRY: USA
;
      ZIP: 94111-3834
ï
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE:
                PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/071,838
      FILING DATE: 01-MAY-1998
      CLASSIFICATION: 800
    ATTORNEY/AGENT INFORMATION:
```

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NAME: Bastian, Kevin L.
      REGISTRATION NUMBER: 34,774
      REFERENCE/DOCKET NUMBER: 023070-086100US
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 576-0200
;
      TELEFAX: (415) 576-0300
   INFORMATION FOR SEQ ID NO: 253:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-09-071-838-253
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+04;
           3; Conservative 0; Mismatches
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           8 KMR 10
Qy
             \perp
           7 KMR 9
Db
RESULT 44
US-09-823-823-36
; Sequence 36, Application US/09823823
; Patent No. US20020171092A1
; GENERAL INFORMATION:
; APPLICANT: Yamamoto, Satoshi
; APPLICANT: Kasai, Hiroaki
; APPLICANT: Nakamura, Shoko
; APPLICANT: Suzuki, Makoto
; APPLICANT: Hamoda, Tohru
; TITLE OF INVENTION: METHOD FOR IDENTIFICATION AND DETECTION OF MICROORGANISMS
USING GYRASE
; TITLE OF INVENTION: GENE AS AN INDICATOR
   FILE REFERENCE: 12817-004001
  CURRENT APPLICATION NUMBER: US/09/823,823
  CURRENT FILING DATE: 2001-03-30
   PRIOR APPLICATION NUMBER: US 09/208,688
   PRIOR FILING DATE: 1998-12-10
  PRIOR APPLICATION NUMBER: JP 97/343316
  PRIOR FILING DATE: 1997-12-12
  NUMBER OF SEQ ID NOS: 80
  SOFTWARE: PatentIn version 2.0
; SEQ ID NO 36
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    OTHER INFORMATION: Synthetically generated protein
US-09-823-823-36
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+04;
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  Matches 3; Conservative 0; Mismatches
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                                                  0; Indels
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2 EGG 4
Qу
             | | |
            7 EGG 9
Db
RESULT 45
US-09-823-823-37
; Sequence 37, Application US/09823823
; Patent No. US20020171092A1
; GENERAL INFORMATION:
; APPLICANT: Yamamoto, Satoshi
  APPLICANT: Kasai, Hiroaki
  APPLICANT: Nakamura, Shoko
  APPLICANT:
              Suzuki, Makoto
  APPLICANT: Hamoda, Tohru
  TITLE OF INVENTION: METHOD FOR IDENTIFICATION AND DETECTION OF MICROORGANISMS
USING GYRASE
; TITLE OF INVENTION: GENE AS AN INDICATOR
  FILE REFERENCE: 12817-004001
  CURRENT APPLICATION NUMBER: US/09/823,823
  CURRENT FILING DATE: 2001-03-30
  PRIOR APPLICATION NUMBER: US 09/208,688
  PRIOR FILING DATE: 1998-12-10
  PRIOR APPLICATION NUMBER: JP 97/343316
  PRIOR FILING DATE: 1997-12-12
; NUMBER OF SEQ ID NOS: 80
  SOFTWARE: PatentIn version 2.0
; SEQ ID NO 37
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Synthetically generated protein
US-09-823-823-37
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+04;
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                                                0; Indels
                                                                 0; Gaps
 Matches
                                                                             0;
Qy
            2 EGG 4
             111
Db
            7 EGG 9
RESULT 46
US-09-965-967-26
; Sequence 26, Application US/09965967
; Patent No. US20020177557A1
; GENERAL INFORMATION:
; APPLICANT: Shi, Yigong
  TITLE OF INVENTION: Compositions And Methods For Regulating Apoptosis
  FILE REFERENCE: PU-0031 (01-1739-1)
  CURRENT APPLICATION NUMBER: US/09/965,967
  CURRENT FILING DATE: 2001-09-28
  PRIOR APPLICATION NUMBER: 60/236,574
  PRIOR FILING DATE: 2000-09-29
;
```

PRIOR APPLICATION NUMBER: 60/256,830

```
; PRIOR FILING DATE: 2000-12-20
; NUMBER OF SEQ ID NOS: 30
   SOFTWARE: PatentIn version 3.1
; SEQ ID NO 26
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Drosophila melanogaster
US-09-965-967-26
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+04;
                               0; Mismatches
                                               0; Indels
  Matches
           3; Conservative
                                                                0; Gaps
                                                                            0;
            2 EGG 4
Qy
              111
            9 EGG 11
Db
RESULT 47
US-09-999-724-76
; Sequence 76, Application US/09999724
; Publication No. US20030022355A1
; GENERAL INFORMATION:
; APPLICANT: WICKHAM, THOMAS J.
  APPLICANT: KOVESDI, IMRE
  APPLICANT: BROUGH, DOUGLAS E.
  TITLE OF INVENTION: VECTORS AND METHODS FOR GENE TRANSFER
; FILE REFERENCE: 212960
  CURRENT APPLICATION NUMBER: US/09/999,724
  CURRENT FILING DATE: 2001-10-24
  PRIOR APPLICATION NUMBER: US 09/101,751
  PRIOR FILING DATE: 1999-01-29
  PRIOR APPLICATION NUMBER: WO 96US19150
; PRIOR FILING DATE: 1996-11-27
  PRIOR APPLICATION NUMBER: US 08/700,846
  PRIOR FILING DATE: 1996-08-21
  PRIOR APPLICATION NUMBER: US 08/701,124
  PRIOR FILING DATE: 1996-08-21
  PRIOR APPLICATION NUMBER: US 08/563,368
  PRIOR FILING DATE: 1995-11-28
 NUMBER OF SEQ ID NOS: 94
 SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 76
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    FEATURE:
   OTHER INFORMATION: Synthetic
US-09-999-724-76
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+04;
 Matches
            3; Conservative 0; Mismatches 0;
                                                      Indels
                                                                0; Gaps
                                                                            0;
Qу
           5 KKK 7
             Db
           3 KKK 5
```

```
RESULT 48
US-09-931-325A-131
; Sequence 131, Application US/09931325A
; Publication No. US20030054337A1
; GENERAL INFORMATION:
  APPLICANT: Birkett, Ashley J.
  TITLE OF INVENTION: MALARIA IMMUNOGEN AND VACCINE
  FILE REFERENCE: 4564/83503 ICC-103.1
  CURRENT APPLICATION NUMBER: US/09/931,325A
  CURRENT FILING DATE: 2002-02-22
  PRIOR APPLICATION NUMBER: 60/225,843
;
  PRIOR FILING DATE: 2000-08-16
  PRIOR APPLICATION NUMBER: USSN NOT YET ASSIGND
  PRIOR FILING DATE: 2001-08-15
 NUMBER OF SEQ ID NOS: 186
  SOFTWARE: PatentIn Ver. 2.1
;
 SEQ ID NO 131
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
US-09-931-325A-131
                         27.3%; Score 3; DB 10; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1.1e+04;
                               0; Mismatches 0; Indels
           3; Conservative
                                                                 0; Gaps
                                                                             0;
 Matches
           3 GGK 5
Qу
             111
Db
           9 GGK 11
RESULT 49
US-09-931-325A-158
; Sequence 158, Application US/09931325A
; Publication No. US20030054337A1
; GENERAL INFORMATION:
 APPLICANT: Birkett, Ashley J.
  TITLE OF INVENTION: MALARIA IMMUNOGEN AND VACCINE
  FILE REFERENCE: 4564/83503 ICC-103.1
  CURRENT APPLICATION NUMBER: US/09/931,325A
  CURRENT FILING DATE: 2002-02-22
  PRIOR APPLICATION NUMBER: 60/225,843
  PRIOR FILING DATE: 2000-08-16
  PRIOR APPLICATION NUMBER: USSN NOT YET ASSIGND
  PRIOR FILING. DATE: 2001-08-15
;
 NUMBER OF SEQ ID NOS: 186
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 158
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Plasmodium vivax
US-09-931-325A-158
                         27.3%; Score 3; DB 10; Length 11;
 Query Match
 Best Local Similarity
                        100.0%; Pred. No. 1.1e+04;
```

```
2 EGG 4
Qу
             \perp
           7 EGG 9
RESULT 50
US-09-876-904A-25
; Sequence 25, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
 TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
 TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
;
  CURRENT FILING DATE: 2001-06-08
 PRIOR APPLICATION NUMBER: US 60/210,925
 PRIOR FILING DATE: 2000-06-09
 NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 25
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
;
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic SV40 large
\mathbf{T}
   OTHER INFORMATION: protein
US-09-876-904A-25
                         27.3%; Score 3; DB 10; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1.1e+04;
           3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
 Matches
            5 KKK 7
             5 KKK 7
RESULT 51
US-09-876-904A-77
; Sequence 77, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
; TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
; FILE REFERENCE: TB-2002.00
; CURRENT APPLICATION NUMBER: US/09/876,904A
```

3; Conservative 0; Mismatches 0; Indels

Matches

0; Gaps

0;

```
CURRENT FILING DATE: 2001-06-08
   PRIOR APPLICATION NUMBER: US 60/210,925
   PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 77
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide
crosslinked
   OTHER INFORMATION: to bovine serum albumin
US-09-876-904A-77
  Query Match
                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+04;
  Matches
            3; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            5 KKK 7
Qу
              III
            6 KKK 8
RESULT 52
US-09-876-904A-273
; Sequence 273, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 273
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Drosophila sp.
    FEATURE:
   OTHER INFORMATION: Recombination repair protein 1
US-09-876-904A-273
 Query Match
                          27.3%; Score 3;
                                            DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+04;
 Matches
             3; Conservative
                              0; Mismatches
                                                                 0;
                                                                     Gaps
                                                                             0;
                                                   0;
                                                      Indels
            5 KKK 7
Qу
              | \cdot |
Db
            6 KKK 8
```

```
RESULT 53
US-09-876-904A-354
; Sequence 354, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
   FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 354
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
   FEATURE:
   OTHER INFORMATION: Human ATF-3 (in basic region that binds DNA)
US-09-876-904A-354
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity
                         100.0%; Pred. No. 1.1e+04;
 Matches
           3; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0;
                                                                     Gaps
                                                                             0;
            5 KKK 7
Qy
              111
            6 KKK 8
Db
RESULT 54
US-09-876-904A-373
; Sequence 373, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
   FILE REFERENCE: TB-2002.00
   CURRENT APPLICATION NUMBER: US/09/876,904A
   CURRENT FILING DATE: 2001-06-08
   PRIOR APPLICATION NUMBER: US 60/210,925
   PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
 SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 373
   LENGTH: 11
```

```
TYPE: PRT
    ORGANISM: Homo sapiens
    OTHER INFORMATION: MBP-1 (class I MHC enhancer binding protein
    OTHER INFORMATION: 1) mw 200 kD.
US-09-876-904A-373
  Query Match
                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+04;
            3; Conservative
                              0; Mismatches
                                                                             0;
                                                 0; Indels
                                                                 0; Gaps
            5 KKK 7
Qy
              IIII
Db
            3 KKK 5
RESULT 55
US-09-876-904A-544
; Sequence 544, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
   PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 544
   LENGTH: 11
    TYPE: PRT
   ORGANISM: Rattus sp.
   OTHER INFORMATION: Rat L17 ribosomal protein (184 aas).
US-09-876-904A-544
  Query Match
                          27.3%; Score 3; DB 10; Length 11;
                         100.0%; Pred. No. 1.1e+04;
  Best Local Similarity
 Matches
            3; Conservative
                               0; Mismatches
                                                 0;
                                                                             0;
                                                      Indels
                                                                 0; Gaps
            5 KKK 7
Qу
              III
Db
            1 KKK 3
RESULT 56
US-09-876-904A-597
; Sequence 597, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
```

; APPLICANT: BOULIKAS, TENI

```
; TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
   FILE REFERENCE: TB-2002.00
   CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE:
                        2001-06-08
; PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 597
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Parechinus angulosus
   OTHER INFORMATION: Sea urchin Parechinus angulosus sperm H1 (248 aa).
US-09-876-904A-597
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.1e+04;
           3; Conservative 0; Mismatches
 Matches
                                                0; Indels
                                                                0;
                                                                    Gaps
                                                                            0;
            5 KKK 7
QУ
             111
            8 KKK 10
RESULT 57
US-09-852-910-238
; Sequence 238, Application US/09852910
; Publication No. US20030096297A1
; GENERAL INFORMATION:
  APPLICANT: Hamm, Heidi
  APPLICANT: Gilchrist, Annette
  TITLE OF INVENTION: Method For Identifying Inhibitors of G Protein Coupled
Receptor Signaling
; FILE REFERENCE: 2661-101
 CURRENT APPLICATION NUMBER: US/09/852,910
  CURRENT FILING DATE: 2001-09-18
 PRIOR APPLICATION NUMBER: US 60/275,472
  PRIOR FILING DATE: 2001-03-14
  NUMBER OF SEQ ID NOS: 271
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 238
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   NAME/KEY: misc_feature
   LOCATION: (1)..(11)
   OTHER INFORMATION: G13 library peptide
US-09-852-910-238
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.1e+04;
```

```
Matches
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                              0;
                                                                  0; Gaps
            9 MRA 11
Qу
              +++
Db
            1 MRA 3
RESULT 58
US-09-972-656-7
; Sequence 7, Application US/09972656
; Publication No. US20030099647A1.
; GENERAL INFORMATION:
; APPLICANT: Deshpande, Rajendra
   APPLICANT: Tsai, Mei-Mei
   TITLE OF INVENTION: Fully Human Antibody Fab Fragments with Human Interferon-
Gamma
   TITLE OF INVENTION: Neutralizing Activity
   FILE REFERENCE: A-799
   CURRENT APPLICATION NUMBER: US/09/972,656
   CURRENT FILING DATE: 2001-10-05
   NUMBER OF SEQ ID NOS: 135
   SOFTWARE: PatentIn version 3.0
; SEQ ID NO 7
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-09-972-656-7
                          27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+04;
                                 0; Mismatches
  Matches
            3; Conservative
                                                       Indels
                                                   0;
                                                                  0;
                                                                      Gaps
                                                                              0;
            3 GGK 5
Qy
              \Box
Db
            6 GGK 8
RESULT 59
US-09-893-878-17
; Sequence 17, Application US/09893878
; Publication No. US20030113717A1
    GENERAL INFORMATION:
         APPLICANT: Ladner, Robert Charles
                    Guterman, Sonia Kosow
                    Roberts, Bruce Lindsay
;
                    Markland, William
                    Ley, Arthur Charles
                    Kent, Rachel Baribault
         TITLE OF INVENTION: Directed Evolution of No. US20030113717A1el
                             Binding Proteins
         NUMBER OF SEQUENCES: 121
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Browdy and Neimark
              STREET: 419 Seventh Street, N.W.
                      Suite 300
              CITY: Washington,
              STATE: DC
```

```
COUNTRY: USA
              ZIP: 20004
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: WORDPERFECT 5.1
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/893,878
              FILING DATE: 29-Jun-2001
              CLASSIFICATION: <Unknown>
;
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/009,319
              FILING DATE: <Unknown>
              APPLICATION NUMBER: 07/664,989
              FILING DATE: 01-MAR-1991
              APPLICATION NUMBER: PCT/US89/03731
              FILING DATE: 01-SEP-1989
              APPLICATION NUMBER: 07/487,063
              FILING DATE: 02-MAR-1990
              APPLICATION NUMBER: 07/240,160
              FILING DATE: 02-SEP-1988
        ATTORNEY/AGENT INFORMATION:
              NAME: Cooper, Iver P.
              REGISTRATION NUMBER: 28005
              REFERENCE/DOCKET NUMBER: LADNER 7
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 202-628-5197
              TELEFAX: 202-737-3528
   INFORMATION FOR SEQ ID NO: 17:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              TOPOLOGY: linear
        MOLECULE TYPE: protein
        SEQUENCE DESCRIPTION: SEQ ID NO: 17:
US-09-893-878-17
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1.1e+04;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
           1 AEG 3
Qу
              +11
            9 AEG 11
Db
RESULT 60
US-09-930-915A-172
; Sequence 172, Application US/09930915A
; Publication No. US20030138769A1
; GENERAL INFORMATION:
  APPLICANT: Birkett, Ashley J.
  TITLE OF INVENTION: IMMUNOGENIC HBc CHIMER PARTICLES HAVING ENHANCED
 TITLE OF INVENTION: STABILITY
; FILE REFERENCE: 4564/83501 ICC-102.2 PCT
; CURRENT APPLICATION NUMBER: US/09/930,915A
```

```
CURRENT FILING DATE: 2001-08-15
   PRIOR APPLICATION NUMBER: 60/226,867
   PRIOR FILING DATE: 2000-08-22
  PRIOR APPLICATION NUMBER: 60/225,843
  PRIOR FILING DATE: 2000-08-16
  NUMBER OF SEQ ID NOS: 313
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 172
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Human immunodeficiency virus type 1
US-09-930-915A-172
                          27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity
                         100.0%; Pred. No. 1.1e+04;
  Matches
            3; Conservative
                              0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                             0;
            3 GGK 5
Qу
              IIII
Db
            9 GGK 11
RESULT 61
US-09-930-915A-195
; Sequence 195, Application US/09930915A
; Publication No. US20030138769A1
; GENERAL INFORMATION:
  APPLICANT: Birkett, Ashley J.
  TITLE OF INVENTION: IMMUNOGENIC HBc CHIMER PARTICLES HAVING ENHANCED
  TITLE OF INVENTION: STABILITY
  FILE REFERENCE: 4564/83501 ICC-102.2 PCT
  CURRENT APPLICATION NUMBER: US/09/930,915A
  CURRENT FILING DATE: 2001-08-15
  PRIOR APPLICATION NUMBER: 60/226,867
  PRIOR FILING DATE: 2000-08-22
  PRIOR APPLICATION NUMBER: 60/225,843
  PRIOR FILING DATE: 2000-08-16
  NUMBER OF SEQ ID NOS: 313
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 195
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Plasmodium vivax
US-09-930-915A-195
                          27.3%; Score 3; DB 10; Length 11;
 Query Match
  Best Local Similarity
                         100.0%; Pred. No. 1.1e+04;
            3; Conservative 0; Mismatches
                                                 0;
                                                      Indels
                                                                0; Gaps
                                                                             0:
Qу
            2 EGG 4
             \perp
            7 EGG 9
RESULT 62
US-09-933-767-1184
; Sequence 1184, Application US/09933767
```

```
; Publication No. US20030181692A1
; GENERAL INFORMATION:
  APPLICANT: Ni et al.
  TITLE OF INVENTION: 207 Human Secreted Proteins
  FILE REFERENCE: PZ007P2
  CURRENT APPLICATION NUMBER: US/09/933,767
  CURRENT FILING DATE: 2001-08-22
  PRIOR APPLICATION NUMBER: PCT/US01/05614
  PRIOR FILING DATE: 2001-02-21
  PRIOR APPLICATION NUMBER: 60/184,836
  PRIOR FILING DATE: 2000-02-24
  PRIOR APPLICATION NUMBER: 60/193,170
  PRIOR FILING DATE: 2000-03-29
  PRIOR APPLICATION NUMBER: 09/205,258
  PRIOR FILING DATE: 1998-12-04
  PRIOR APPLICATION NUMBER: PCT/US98/11422
  PRIOR FILING DATE: 1998-06-04
  PRIOR APPLICATION NUMBER: 60/048,885
  PRIOR FILING DATE: 1997-06-06
  PRIOR APPLICATION NUMBER: 60/049,375
  PRIOR FILING DATE: 1997-06-06
  PRIOR APPLICATION NUMBER: 60/048,881
  PRIOR FILING DATE: 1997-06-06
  PRIOR APPLICATION NUMBER: 60/048,880
  PRIOR FILING DATE: 1997-06-06
  PRIOR APPLICATION NUMBER: 60/048,896
```

PRIOR FILING DATE: 1997-06-06

; PRIOR FILING DATE: 1997-06-06

PRIOR APPLICATION NUMBER: 60/049,020

PRIOR APPLICATION NUMBER: 60/048,876

PRIOR APPLICATION NUMBER: 60/048,895

PRIOR APPLICATION NUMBER: 60/048,884

PRIOR APPLICATION NUMBER: 60/048,894

PRIOR APPLICATION NUMBER: 60/048,971

PRIOR APPLICATION NUMBER: 60/048,964

PRIOR APPLICATION NUMBER: 60/048,882

PRIOR APPLICATION NUMBER: 60/048,899

PRIOR APPLICATION NUMBER: 60/048,893

PRIOR APPLICATION NUMBER: 60/048,900

PRIOR APPLICATION NUMBER: 60/048,901

PRIOR APPLICATION NUMBER: 60/048,892

PRIOR APPLICATION NUMBER: 60/048,915

PRIOR APPLICATION NUMBER: 60/049,019

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; PRIOR APPLICATION NUMBER: 60/048,970
```

- PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/048,972
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/048,916
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/049,373
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/048,875
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/049,374
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/048,917
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/048,949
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/048,974
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/048,883
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/048,897
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/048,898
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/048,962
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/048,963
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/048,877
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/048,878
- ; PRIOR FILING DATE: 1997-06-06
- ; PRIOR APPLICATION NUMBER: 60/068,054
- ; PRIOR FILING DATE: 1997-12-18
- ; PRIOR APPLICATION NUMBER: 60/068,064
- ; PRIOR FILING DATE: 1997-12-18
- ; PRIOR APPLICATION NUMBER: 60/068,053
- ; PRIOR FILING DATE: 1997-12-18
- ; PRIOR APPLICATION NUMBER: 60/070,923
- ; PRIOR FILING DATE: 1997-12-18
- ; PRIOR APPLICATION NUMBER: 60/073,160
- ; PRIOR FILING DATE: 1998-01-30
- ; PRIOR APPLICATION NUMBER: 60/073,159
- ; PRIOR FILING DATE: 1998-01-30
- ; PRIOR APPLICATION NUMBER: 60/073,165
- ; PRIOR FILING DATE: 1998-01-30
- ; PRIOR APPLICATION NUMBER: 60/073,164
- ; PRIOR FILING DATE: 1998-01-30
- ; PRIOR APPLICATION NUMBER: 60/085,925
- ; PRIOR FILING DATE: 1998-05-18
- ; PRIOR APPLICATION NUMBER: 60/085,921
- ; PRIOR FILING DATE: 1998-05-18
- ; PRIOR APPLICATION NUMBER: 60/085,923
- ; PRIOR FILING DATE: 1998-05-18
- ; PRIOR APPLICATION NUMBER: 60/085,922
- ; PRIOR FILING DATE: 1998-05-18
- ; PRIOR APPLICATION NUMBER: 60/092,921

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 PRIOR APPLICATION NUMBER: 60/094,657
; PRIOR FILING DATE: 1998-07-30
; NUMBER OF SEQ ID NOS: 1245
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1184
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US-09-933-767-1184
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Qу
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           8 AEG 10
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US-09-896-095-17
; Sequence 17, Application US/09896095
; Publication No. US20030219886A1
; GENERAL INFORMATION:
; APPLICANT: LADNER, Charles C.
  APPLICANT: GUTERMAN, Sonia K.
  APPLICANT: ROBERTS, Bruce L.
  APPLICANT: MARKLAND, William
  APPLICANT: LEY, Arthur C.
  APPLICANT: KENT, Rachel B.
  TITLE OF INVENTION: DIRECTED EVOLUTION OF NOVEL BINDING PROTEINS
  FILE REFERENCE: LADNER=7L
  CURRENT APPLICATION NUMBER: US/09/896,095
  CURRENT FILING DATE: 2001-06-29
  PRIOR APPLICATION NUMBER: 08/415,922
  PRIOR FILING DATE: 1995-03-04
  PRIOR APPLICATION NUMBER: 08/009,319
  PRIOR FILING DATE: 1993-01-26
  PRIOR APPLICATION NUMBER: 07/664,989
  PRIOR FILING DATE: 1991-03-01
; PRIOR APPLICATION NUMBER: 08/993,776
  PRIOR FILING DATE: 1997-12-18
  NUMBER OF SEO ID NOS: 274
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; SEQ ID NO 17
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US-09-896-095-17
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 Best Local Similarity 100.0%; Pred. No. 1.1e+04;
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1 AEG 3
Qу
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RESULT 64
US-10-361-270-18
; Sequence 18, Application US/10361270
; Publication No. US20040038299A1
; GENERAL INFORMATION:
  APPLICANT: Kuai, Jun
  APPLICANT: Wooters, Joseph L
  APPLICANT: Nickbarg, Elliott
  APPLICANT: Qiu, Yongchang
  APPLICANT: Lin, Lih-Ling
  TITLE OF INVENTION: Composition and Method for Modulating an Inflammatory
  TITLE OF INVENTION: Response
  FILE REFERENCE: 22058-565
  CURRENT APPLICATION NUMBER: US/10/361,270
  CURRENT FILING DATE: 2003-02-10
  PRIOR APPLICATION NUMBER: 60/355,183
  PRIOR FILING DATE: 2002-02-08
  NUMBER OF SEQ ID NOS: 35
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 18
   LENGTH: 11
   TYPE: PRT
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    FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Fragment of
   OTHER INFORMATION: TRAF2 protein.
US-10-361-270-18
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Qу
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           9 GKK 11
Db
RESULT 65
US-10-458-860-37
; Sequence 37, Application US/10458860
; Publication No. US20040049800A1
; GENERAL INFORMATION:
; APPLICANT: Kopin, Alan S.
  APPLICANT: Beinborn, Martin
  TITLE OF INVENTION: Rapid Methods For Assessing Therapeutic
  TITLE OF INVENTION: Activity Using Animals Expressing Constitutively Active
G
  TITLE OF INVENTION: Protein-Coupled Receptors
  FILE REFERENCE: 00398/517002
; CURRENT APPLICATION NUMBER: US/10/458,860
; CURRENT FILING DATE: 2003-06-11
; PRIOR APPLICATION NUMBER: US 60/388,450
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PRIOR FILING DATE: 2002-06-13
; NUMBER OF SEQ ID NOS: 87
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 37
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Synthetic fragment
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Qу
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Db
RESULT 66
US-10-653-595-458
; Sequence 458, Application US/10653595
; Publication No. US20040048304A1
; GENERAL INFORMATION:
  APPLICANT: Ruben et. al.
  TITLE OF INVENTION: 95 Human secreted proteins
  FILE REFERENCE: PZ027P1C1
  CURRENT APPLICATION NUMBER: US/10/653,595
  CURRENT FILING DATE: 2003-09-03
  PRIOR APPLICATION NUMBER: US 09/397945
  PRIOR FILING DATE: 1999-09-17
  PRIOR APPLICATION NUMBER: PCT/US99/05804
  PRIOR FILING DATE: 1999-03-18
  PRIOR APPLICATION NUMBER: 60/078,566
  PRIOR FILING DATE: 1998-03-19
  PRIOR APPLICATION NUMBER: 60/078,576
  PRIOR FILING DATE: 1998-03-19
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  PRIOR FILING DATE: 1998-04-01
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   PRIOR FILING DATE: 1998-04-01
   PRIOR APPLICATION NUMBER: 60/078,578
  PRIOR FILING DATE: 1998-03-19
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Qу
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RESULT 67
US-10-601-837-222
; Sequence 222, Application US/10601837
; Publication No. US20040053309A1
; GENERAL INFORMATION:
; APPLICANT: Holt, Gordon D
; APPLICANT: Kelly, Michael D
; APPLICANT: Kennedy, Sandra J
  APPLICANT: Moyses, Christopher
  TITLE OF INVENTION: Proteins, Genes and Their Use for Diagnosis and Treatment
of Kidney
  TITLE OF INVENTION: Response
;
  FILE REFERENCE: 2543-1-030
  CURRENT APPLICATION NUMBER: US/10/601,837
  CURRENT FILING DATE: 2003-06-23
  PRIOR APPLICATION NUMBER: PCT/GB01/05777
; PRIOR FILING DATE: 2001-12-24
  PRIOR APPLICATION NUMBER: US 60/260392
  PRIOR FILING DATE: 2000-12-29
  NUMBER OF SEQ ID NOS: 272
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  SOFTWARE: PatentIn version 3.1
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   ORGANISM: Ratus No. US20040053309Alvegicus
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                         100.0%; Pred. No. 1.1e+04;
 Best Local Similarity
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Qу
              \perp
Db
            5 AEG 7
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US-10-668-400-17
; Sequence 17, Application US/10668400
; Publication No. US20040058859A1
; GENERAL INFORMATION:
 APPLICANT: Bay, Sylvie
  APPLICANT: Cantacuzene, Daniele
; APPLICANT: Leclerc, Claude
; APPLICANT: Lo-Man, Richard
; TITLE OF INVENTION: MULTIPLE ANTIGEN GLYCOPEPTIDE CARBOHYDRATE,
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TITLE OF INVENTION: VACCINE COMPRISING THE SAME AND USE THEREOF
  FILE REFERENCE: 102.166A-1
  CURRENT APPLICATION NUMBER: US/10/668,400
  CURRENT FILING DATE: 2003-09-23
  PRIOR APPLICATION NUMBER: US 09/049,847
  PRIOR FILING DATE: 1998-03-27
 PRIOR APPLICATION NUMBER: US 60/041,726
 PRIOR FILING DATE: 1997-03-27
; NUMBER OF SEQ ID NOS: 25
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 17
   LENGTH: 11
   TYPE: PRT
;
   ORGANISM: ARTIFICIAL SEQUENCE
   FEATURE:
   OTHER INFORMATION: Designed synthetic linear glycopeptide containing a
saccharidic
   OTHER INFORMATION: B-cell epitope and a CD4+ T-cell epitope able to induce
anti-
   OTHER INFORMATION: saccharidic antibodies
US-10-668-400-17
                         27.3%; Score 3; DB 12; Length 11;
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 Best Local Similarity 100.0%; Pred. No. 1.1e+04;
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Qу
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Db
            8 GGK 10
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US-10-668-400-18
; Sequence 18, Application US/10668400
; Publication No. US20040058859A1
; GENERAL INFORMATION:
  APPLICANT: Bay, Sylvie
  APPLICANT: Cantacuzene, Daniele
  APPLICANT: Leclerc, Claude
  APPLICANT: Lo-Man, Richard
  TITLE OF INVENTION: MULTIPLE ANTIGEN GLYCOPEPTIDE CARBOHYDRATE,
  TITLE OF INVENTION: VACCINE COMPRISING THE SAME AND USE THEREOF
  FILE REFERENCE: 102.166A-1
  CURRENT APPLICATION NUMBER: US/10/668,400
  CURRENT FILING DATE: 2003-09-23
  PRIOR APPLICATION NUMBER: US 09/049,847
  PRIOR FILING DATE: 1998-03-27
  PRIOR APPLICATION NUMBER: US 60/041,726
  PRIOR FILING DATE: 1997-03-27
  NUMBER OF SEQ ID NOS: 25
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 18
   LENGTH: 11
   TYPE: PRT
;
   ORGANISM: ARTIFICIAL SEQUENCE
   FEATURE:
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OTHER INFORMATION: Designed synthetic linear glycopeptide containing a
saccharidic
   OTHER INFORMATION: B-cell epitope and a CD4+ T-cell epitope able to induce
anti-
   OTHER INFORMATION: saccharidic antibodies
   FEATURE:
   NAME/KEY: MISC FEATURE
   LOCATION: (1)..(1)
   OTHER INFORMATION: alpha-N-acetylgalactosamine (GalNAc)-Serine
   FEATURE:
   NAME/KEY: MISC FEATURE
   LOCATION: (2)..(3)
   OTHER INFORMATION: alpha-N-acetylgalactosamine (GalNAc)-Threonine
US-10-668-400-18
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 Query Match
 Best Local Similarity 100.0%; Pred. No. 1.1e+04;
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            3 GGK 5
Qу
            8 GGK 10
RESULT 70
US-10-668-400-19
; Sequence 19, Application US/10668400
; Publication No. US20040058859A1
; GENERAL INFORMATION:
  APPLICANT: Bay, Sylvie
  APPLICANT: Cantacuzene, Daniele
  APPLICANT: Leclerc, Claude
  APPLICANT: Lo-Man, Richard
  TITLE OF INVENTION: MULTIPLE ANTIGEN GLYCOPEPTIDE CARBOHYDRATE,
  TITLE OF INVENTION: VACCINE COMPRISING THE SAME AND USE THEREOF
  FILE REFERENCE: 102.166A-1
  CURRENT APPLICATION NUMBER: US/10/668,400
  CURRENT FILING DATE:
                        2003-09-23
  PRIOR APPLICATION NUMBER: US 09/049,847
;
 PRIOR FILING DATE: 1998-03-27
  PRIOR APPLICATION NUMBER: US 60/041,726
  PRIOR FILING DATE: 1997-03-27
 NUMBER OF SEQ ID NOS: 25
  SOFTWARE: PatentIn version 3.1
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   LENGTH: 11
   TYPE: PRT
   ORGANISM: ARTIFICIAL SEQUENCE
   FEATURE:
   OTHER INFORMATION: Designed synthetic linear glycopeptide containing a
   OTHER INFORMATION: B-cell epitope and a CD4+ T-cell epitope able to induce
anti-
   OTHER INFORMATION: saccharidic antibodies
   FEATURE:
;
   NAME/KEY: MISC FEATURE
   LOCATION: (1)..(1)
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OTHER INFORMATION: alpha-N-acetylgalactosamine (GalNAc)-Serine
   FEATURE:
   NAME/KEY: MISC FEATURE
   LOCATION: (2)..(3)
   OTHER INFORMATION: alpha-N-acetylgalactosamine (GalNAc)-Threonine
   FEATURE:
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US-10-668-400-19
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US-10-039-645-37
; Sequence 37, Application US/10039645
; Publication No. US20020147170A1
; GENERAL INFORMATION:
 APPLICANT: Kopin, Alan S.
 APPLICANT: Beinborn, Martin
  TITLE OF INVENTION: Constitutively Active, Hypersensitive,
  TITLE OF INVENTION: and No. US20020147170Alfunctional Receptors as No.
US20020147170A1el Therapeutic Agents
; FILE REFERENCE: 00398/510002
; CURRENT APPLICATION NUMBER: US/10/039,645
; CURRENT FILING DATE: 2001-10-25
; PRIOR APPLICATION NUMBER: US 60/243,550
; PRIOR FILING DATE: 2000-10-26
; NUMBER OF SEQ ID NOS: 87
 SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 37
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   ORGANISM: Homo sapiens
US-10-039-645-37
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                                                     Indels
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           7 GKK 9
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US-10-165-015-32
; Sequence 32, Application US/10165015
; Publication No. US20030032594A1
; GENERAL INFORMATION:
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APPLICANT: PACTT, Tech Transfer Office University of Lausanne
  APPLICANT: Bonny, Christophe
  TITLE OF INVENTION: INTRACELLULAR DELIVERY OF BIOLOGICAL EFFECTORS
  FILE REFERENCE: 20349-512 CIP
  CURRENT APPLICATION NUMBER: US/10/165,015
  CURRENT FILING DATE: 2002-06-07
  PRIOR APPLICATION NUMBER: 09/977,831
  PRIOR FILING DATE: 2001-10-15
  PRIOR APPLICATION NUMBER: 60/240,315
  PRIOR FILING DATE: 2000-10-13
  NUMBER OF SEQ ID NOS: 37
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 32
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: TRANSPORTER
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US-10-165-015-32
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Qу
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Db
RESULT 73
US-10-108-795-26
; Sequence 26, Application US/10108795
; Publication No. US20030033633A1
; GENERAL INFORMATION:
  APPLICANT: Hemmings, Brian A
  APPLICANT: Millward, Thomas A
  TITLE OF INVENTION: Calcium Regulated Kinase
  FILE REFERENCE: 30110
  CURRENT APPLICATION NUMBER: US/10/108,795
  CURRENT FILING DATE: 2002-03-28
  PRIOR APPLICATION NUMBER: 09/133,062
  PRIOR FILING DATE: 1998-08-12
   PRIOR APPLICATION NUMBER: GB 9717089.8
   PRIOR FILING DATE: 1997-08-12
   PRIOR APPLICATION NUMBER: GB 9717499.9
  PRIOR FILING DATE: 1998-08-19
  NUMBER OF SEQ ID NOS: 34
   SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 26
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
;
   OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
   OTHER INFORMATION: internal peptide
US-10-108-795-26
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Best Local Similarity 100.0%; Pred. No. 1.1e+04;
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Qу
              9 AEG 11
Db
RESULT 74
US-10-108-795-29
; Sequence 29, Application US/10108795
; Publication No. US20030033633A1
; GENERAL INFORMATION:
  APPLICANT: Hemmings, Brian A
  APPLICANT: Millward, Thomas A
   TITLE OF INVENTION: Calcium Regulated Kinase
   FILE REFERENCE: 30110
   CURRENT APPLICATION NUMBER: US/10/108,795
   CURRENT FILING DATE: 2002-03-28
  PRIOR APPLICATION NUMBER: 09/133,062
٠;
   PRIOR FILING DATE: 1998-08-12
   PRIOR APPLICATION NUMBER: GB 9717089.8
   PRIOR FILING DATE: 1997-08-12
   PRIOR APPLICATION NUMBER: GB 9717499.9
   PRIOR FILING DATE: 1998-08-19
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    TYPE: PRT
    ORGANISM: Artificial Sequence
    OTHER INFORMATION: Description of Artificial Sequence:synthetic peptide
    OTHER INFORMATION: internal peptide
US-10-108-795-29
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            4 GKK 6
Qу
              111
            7 GKK 9
Db
RESULT 75
US-10-039-831-11
; Sequence 11, Application US/10039831
; Publication No. US20030044353A1
; GENERAL INFORMATION:
  APPLICANT: Weissleder, Ralph
  APPLICANT: Tung, Ching-Hsuan
; APPLICANT: Mahmood, Umar
; TITLE OF INVENTION: ACTIVATABLE IMAGING PROBES
; FILE REFERENCE: 00786-572001
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27.3%; Score 3; DB 14; Length 11;

Query Match

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  PRIOR FILING DATE: 2001-03-19
  PRIOR APPLICATION NUMBER: US 60/260,123
  PRIOR FILING DATE: 2001-01-05
  NUMBER OF SEQ ID NOS: 18
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Synthetically generated peptide
;
   FEATURE:
;
   NAME/KEY: VARIANT
   LOCATION: (3)...(3)
   OTHER INFORMATION: Xaa = pipecolic
US-10-039-831-11
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           3 GGK 5
Qу
             \perp
Db
           8 GGK 10
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Search completed: April 8, 2004, 16:35:48

Job time : 31.3077 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

April 8, 2004, 15:30:07; Search time 27.7692 Seconds Run on:

(without alignments)

124.984 Million cell updates/sec

US-09-787-443A-19 Title:

Perfect score: 11

1 AEGGKKKKMRA 11 Sequence:

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 1017041 seqs, 315518202 residues

Word size :

460 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

SPTREMBL 25:* Database :

1: sp archea:*

2: sp_bacteria:*

3: sp_fungi:*

4: sp human:*

5: sp_invertebrate:*

6: sp_mammal:*

7: sp_mhc:*

8: sp organelle:*

9: sp_phage:*

10: sp_plant:*

11: sp rodent:*

12: sp_virus:*
13: sp_vertebrate:*

14: sp_unclassified:*

15: sp rvirus:*

16: sp bacteriap:*

17: sp archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

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Score Match Length DB ID Description No.

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5 2 18.2 11 2 Q914F7	3	3	27.3	11	13	Q9PS22		Q9ps22 xenopus lae
6 2 18.2 11 2 095618	4	2	18.2	11	2	Q9R790		Q9r790 borrelia ga
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22				11	4	060761		060761 homo sapien
23				11	4	075811		075811 homo sapien
25			18.2	11	4	Q9Н4Н5		Q9h4h5 homo sapien
25	24	2	18.2	11	4	Q15997		Q15997 homo sapien
27	25		18.2	11	4	Q8NFN9		Q8nfn9 homo sapien
28			18.2	11	4	Q9UC46		Q9uc46 homo sapien
29	27	2	18.2	11	4	Q9UCR1		Q9ucrl homo sapien
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44       2       18.2       11       7       077907       077907 oreochromi         45       2       18.2       11       8       Q9G5Y0       Q9g5y0 pseudotrap         46       2       18.2       11       8       Q9G356       Q9g356 agama atra         47       2       18.2       11       9       Q38415       Q38415 bacterioph         48       2       18.2       11       9       Q37925       Q37925 bacterioph         49       2       18.2       11       10       Q39784       Q39784 gossypium         50       2       18.2       11       10       Q8RUE7       Q8rue7 zea mays         51       2       18.2       11       10       Q04131       Q04131       1ycopersi         52       2       18.2       11       10       P82336       P82336       pisum sat         53       2       18.2       11       11       Q99N81       Q99n81       mus muscu         54       2       18.2       11       11       Q9Z1h5       Q9z1h5       mus muscu         55       2       18.2       11       11       Q9Z1h5       P81075       P81075								
45 2 18.2 11 8 Q9G5YO Q9g5yO pseudotrap 46 2 18.2 11 8 Q9G356 Q9g356 agama atra 47 2 18.2 11 9 Q38415 Q38415 bacterioph 48 2 18.2 11 9 Q37925 Q37925 bacterioph 49 2 18.2 11 10 Q39784 Q39784 gossypium 50 2 18.2 11 10 Q8RUE7 Q8rue7 zea mays 51 2 18.2 11 10 Q04131 Q04131 Q04131 lycopersi 52 2 18.2 11 10 P82336 P82336 pisum sat 53 2 18.2 11 11 Q99N81 Q99n81 mus muscu 54 2 18.2 11 11 Q9R1N6 Q9r1n6 mus muscu 55 2 18.2 11 11 Q9Z1H5 Q9z1h5 mus muscu 56 2 18.2 11 11 P81075 P81075 mus muscu	43							
46 2 18.2 11 8 Q9G356 Q9g356 agama atra 47 2 18.2 11 9 Q38415 Q38415 bacterioph 48 2 18.2 11 9 Q37925 Q37925 bacterioph 49 2 18.2 11 10 Q39784 Q39784 gossypium 50 2 18.2 11 10 Q8RUE7 Q8rue7 zea mays 51 2 18.2 11 10 Q04131 Q04131 Q04131 lycopersi 52 2 18.2 11 10 P82336 P82336 pisum sat 53 2 18.2 11 11 Q99N81 Q99n81 mus muscu 54 2 18.2 11 11 Q9R1N6 Q9r1n6 mus muscu 55 2 18.2 11 11 Q9Z1H5 Q9z1h5 mus muscu 56 2 18.2 11 11 P81075 P81075 mus muscu	44				7			
47 2 18.2 11 9 Q38415 Q38415 bacterioph 48 2 18.2 11 9 Q37925 Q37925 bacterioph 49 2 18.2 11 10 Q39784 Q39784 gossypium 50 2 18.2 11 10 Q8RUE7 Q8rue7 zea mays 51 2 18.2 11 10 Q04131 Q04131 Q04131 lycopersi 52 2 18.2 11 10 P82336 P82336 pisum sat 53 2 18.2 11 11 Q99N81 Q99n81 mus muscu 54 2 18.2 11 11 Q9R1N6 Q9r1n6 mus muscu 55 2 18.2 11 11 Q9Z1H5 Q9z1h5 mus muscu 56 2 18.2 11 11 P81075 P81075 mus muscu	45				8			
48 2 18.2 11 9 Q37925 Q37925 bacterioph 49 2 18.2 11 10 Q39784 Q39784 gossypium 50 2 18.2 11 10 Q8RUE7 Q8rue7 zea mays 51 2 18.2 11 10 Q04131 Q04131 lycopersi 52 2 18.2 11 10 P82336 P82336 pisum sat 53 2 18.2 11 11 Q99N81 Q99n81 mus muscu 54 2 18.2 11 11 Q9R1N6 Q9r1n6 mus muscu 55 2 18.2 11 11 Q9Z1H5 Q9z1h5 mus muscu 56 2 18.2 11 11 P81075 P81075 mus muscu								
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50 2 18.2 11 10 Q8RUE7 Q8rue7 zea mays 51 2 18.2 11 10 Q04131 Q04131 lycopersi 52 2 18.2 11 10 P82336 P82336 pisum sat 53 2 18.2 11 11 Q99N81 Q99n81 mus muscu 54 2 18.2 11 11 Q9R1N6 Q9r1n6 mus muscu 55 2 18.2 11 11 Q9Z1H5 Q9z1h5 mus muscu 56 2 18.2 11 11 P81075 P81075 mus muscu	48							
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54 2 18.2 11 11 Q9R1N6 Q9r1n6 mus muscu 55 2 18.2 11 11 Q9Z1H5 Q9Z1h5 mus muscu 56 2 18.2 11 11 P81075 P81075 mus muscu								
55 2 18.2 11 11 Q9Z1H5 Q9z1h5 mus muscu 56 2 18.2 11 11 P81075 P81075 mus muscu								
56 2 18.2 11 11 P81075 P81075 mus muscu								
57 2 18.2 11 11 Q80WI3 Q80wi3 rattus sp	57	2	18.2	11	11	Q80WI3		Q80wi3 rattus sp.

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58	2	18.2	11	12	Q83083	Q83083 leucania se
59	2	18.2	11	12	Q9J1G3	Q9j1g3 tt virus. o
60	2	18.2	11	12	040974	040974 cauliflower
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64	2	18.2	11	15	Q98YS3	Q98ys3 human immun
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69	1	9.1	11	2	Q47451	Q47451 escherichia
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71	1	9.1	11	2	Q52526	Q52526 rhizobium s
72	1	9.1	11	2	Q8KHL0	Q8khl0 streptococc
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74	1	9.1	11	2	Q47606	Q47606 escherichia
75	1	9.1	11	2	Q8L2T4	Q812t4 neisseria m
76	1	9.1	11	2	Q9R7U8	Q9r7u8 pseudomonas
77	1	9.1	11	2	Q9S623	Q9s623 prochloroco
78	1	9.1	11	2	Q9R5P3	Q9r5p3 serratia ma
79	1	9.1	11	2	P77404	P77404 escherichia
80	1	9.1	11	2	Q9RQ60	Q9rq60 buchnera ap
81	1	9.1	11	2	P96319	P96319 desulfovibr
82	1	9.1	11	2	Q93RM6	Q93rm6 staphylococ
83	1	9.1	11	2	Q9EUZ3	Q9euz3 escherichia
84	1	9.1	11	2	Q47600	Q47600 escherichia
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92	1	9.1	11	2	Q8KRA1	Q8kral streptococc
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96	1	9.1	11	2	Q44237	Q44237 anabaena sp
97	1	9.1	11	2	Q9R872	Q9r872 escherichia
98	$\stackrel{-}{1}$	9.1	11	2	ç 256972	Q56972 yersinia pe
99	1	9.1	11	2	Q9R446	Q9r446 neisseria g
100	1	9.1	11	2	Q91UY9	Q9luy9 escherichia

## ALIGNMENTS

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DT
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DT
    01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     Beta-lactamase CTX-M-9 (Fragment).
DΕ
GN
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OS
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OC
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OX
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RC
     Sabate M., Navarro F., Miro E., Campoy S., Mirelis B., Barbe J.,
RA
RA
     Prats G.;
RT
     "A novel complex sull-type integron in Escherichia coli carrying the
     bla(CTX-M-9) gene.";
RT
     Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
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Qy
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DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
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DE
     W2 peptide (Fragment).
OS
     Psophocarpus tetragonolobus (Goa bean) (Asparagus bean).
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
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OC
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     Hirano H., Kagawa H., Okubo K.;
RA
     Phytochemistry 31:731-735(1992).
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Db
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DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DΕ
    Hydrin 1', VASOTOCINYL-GLY-LYS.
    Xenopus laevis (African clawed frog).
OS
OC
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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OC
OC
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OX
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     Iwamuro S., Hayashi H., Kikuyama S.;
RA
     "An additional arginine-vasotocin-related peptide, vasotocinyl-Gly-
RT
     Lys, in Xenopus neurohypophysis.";
RT
     Biochim. Biophys. Acta 1176:143-147(1993).
RL
     GO; GO:0005576; C:extracellular; IEA.
DR
     GO; GO:0005185; F:neurohypophyseal hormone activity; IEA.
DR
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QУ
              \Pi\Pi
            9 GGK 11
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DT
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     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DΕ
     Outer surface protein C (Fragment).
GN
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OS
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OX
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RC
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RX
     MEDLINE=97426044; PubMed=9282748;
     Tilly K., Casjens S., Stevenson B., Bono J.L., Samuels D.S., Hogan D.,
RA
RA
     "he Borrelia burgdorferi circular plasmid cp26: conservation of
RT
     plasmid structure and targeted inactivation of the ospC gene.";
RT
RL
     Mol. Microbiol. 25:361-374(1997).
```

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EMBL; U93700; AAC45535.1; -.
DR
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DR
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DR
     GO; GO:0006952; P:defense response; IEA.
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DR
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            2 KK 3
Db
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
DT
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DE
DE
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GN
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OS
     Bacillus cereus.
OC
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OX
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    Okstad O., Gominet M., Purnelle B., Rose M., Lereclus D., Kolsto A.B.;
RA
     "Sequence analysis of three Bacillus cereus loci under PIcR-regulated
RT
RT
    genes encoding degradative enzymes and enterotoxin.";
    Microbiology 145:3129-3138(1999).
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DR
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    Urbach E., Chisholm S.W.;
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    "Genetic diversity in Prochlorococcus populations flow cytometrically
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    Limnol. Oceanog. 43:1615-1630(1998).
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RA
     "Oxidative stress response and characterization of the oxyR-ahpC and
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     furA-katG loci in Mycobacterium marinum.";
     J. Bacteriol. 180:4856-4864(1998).
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Db 7 GG 8
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RP
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     Baumann L., Thao M.L., Hess J.M., Johnson M.W., Baumann P.;
     "The Genetic Properties of the Primary Endosymbionts of Mealybugs
RT
     Differ from Those of Other Endosymbionts of Plant Sap-Sucking
RT
     Insects.";
RT
    Appl. Environ. Microbiol. 68:3198-3205(2002).
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OC
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RP
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     Q9RFZ2;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Fructose biphosphate aldolase (Fragment).
DE
GN
     FBA.
OS
     Mycoplasma mycoides subsp. capri.
     Bacteria; Firmicutes; Mollicutes; Mycoplasmataceae; Mycoplasma.
OC
OX
     NCBI TaxID=40477;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=PG3;
RX
     MEDLINE=20193983; PubMed=10727835;
RA
     Thiaucourt F., Lorenzon S., David A., Breard A.;
     "Phylogeny of the Mycoplasma mycoides cluster as shown by sequencing
RT
     of a putative membrane protein gene.";
RT
     Vet. Microbiol. 72:251-268(2000).
RL
     EMBL; AF162998; AAF15255.1; -.
DR
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1371 MW; 50B0881A3331FB57 CRC64;
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
            2; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                              0;
            5 KK 6
Qу
              \Box
Db
            7 KK 8
RESULT 11
P95518
ΙD
     P95518
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
AC
     P95518;
DT
     01-MAY-1997 (TrEMBLrel. 03, Created)
     01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DE
     Ribosomal protein RpsA (Fragment).
GN
    RPSA.
OS
     Pasteurella haemolytica.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Pasteurellales;
OC
     Pasteurellaceae; Mannheimia.
OX
     NCBI TaxID=75985;
```

```
RP
     SEQUENCE FROM N.A.
     STRAIN=PHL101:
RC
    MEDLINE=97164347; PubMed=9011038;
RX
     Highlander S.K., Garza O., Brown B.J., Koby S., Oppenheim A.B.;
RA
     "Isolation and characterization of the integration host factor genes
RT
RT
     of Pasteurella haemolytica.";
     FEMS Microbiol. Lett. 146:181-188(1997).
RL
     EMBL; U56139; AAC44845.1; -.
DR
FT
     NON TER
                          1
                   1
     SEQUENCE
                11 AA; 1168 MW; 7A4BFD38D339CDDB CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
             2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                              0;
  Matches
                                                                  0; Gaps
            1 AE 2
Qу
              \Box
            3 AE 4
Db
RESULT 12
047420
     047420
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
     047420;
AC
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
     ORF11 protein.
DE
OS
     Escherichia coli.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OX
    NCBI_TaxID=562;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC.
     STRAIN=K12;
RX
    MEDLINE=92041688; PubMed=1657895;
RA
     Sharples G.J., Lloyd R.G.;
     "Resolution of Holliday junctions in Escherichia coli: Identification
RT
     of the ruvC gene product as a 19-Kilodalton protein.";
RT
     J. Bacteriol. 173:7711-7715(1991).
RL
     EMBL; X59551; CAA42127.1; -.
DR
DR
     PIR; S19015; S19015.
     SEQUENCE
              11 AA; 1215 MW; DD8D6D4D56C6D33D CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
             2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            9 MR 10
Qv
              11
            1 MR 2
Db
RESULT 13
044090
ID
    Q44090
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
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RN

[1]

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AC
     Q44090;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     Hypothetical export segment (Fragment).
OS
     Acholeplasma laidlawii.
OC
     Bacteria; Firmicutes; Mollicutes; Acholeplasmatales;
OC
     Acholeplasmataceae; Acholeplasma.
     NCBI TaxID=2148;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=A-EF22;
     Boyer M.J., Jarhede T.K., Tegman V., Wieslander A.;
RA
RT
     "Sequence regions from Acholeplasma laidlawii which restore export of
RT
     beta-lactamase in Escherichia coli.";
RL
     Submitted (JUN-1993) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; Z22875; CAA80495.1; -.
DR
     PIR; S33519; S33519.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA;
                        1234 MW; 5C9D2AE8A682C337 CRC64;
 Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                                                                  0; Gaps
 Matches
             2; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                               0;
            5 KK 6
Qy
              Db
            2 KK 3
RESULT 14
Q8GMU3
ID
     Q8GMU3
                 PRELIMINARY;
                                   PRT:
                                            11 AA.
AC
     Q8GMU3;
     01-MAR-2003 (TrEMBLrel. 23, Created)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DΤ
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Putative catalase isozyme (Fragment).
DΕ
GN
     KATA.
OS
     Acinetobacter lwoffii.
OG
     Plasmid pKLH202.
     Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC
OC
    Moraxellaceae; Acinetobacter.
OX
     NCBI TaxID=28090;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=TC108;
RA
     Kholodii G.Y., Yurieva O.V., Mindlin S.Z., Gorlenko Z.M.,
RA
     Nikiforov V.G.;
RT
     "pKLH2-like aberrant transposons and possible mechanisms of their
     dissemination.";
RT -
RL
     Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AJ250245; CAC80800.1; -.
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
KW
     Plasmid.
FT
     NON TER
                  11
                         11
                        1233 MW; 81A15757B333276A CRC64;
SQ
     SEQUENCE
                11 AA;
```

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Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
             2; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            5 KK 6
Qy
              11
Db
            6 KK 7
RESULT 15
Q9X9S6
ID
     Q9X9S6
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
DT
     01-NOV-1999 (TrEMBLrel. 12, Created)
DT
     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
DE
     Hypothetical protein (Fragment).
OS
     Streptomyces lividans.
OC
     Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
OC
     Streptomycineae; Streptomycetaceae; Streptomyces.
OX
     NCBI TaxID=1916;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=TK21;
RX
    MEDLINE=99328982; PubMed=10400594;
RA
    Martinez-Costa O.H., Martin-Triana A.J., Martinez E.,
     Fernandez-Moreno M.A., Malpartida F.;
RA
     "An additinal regulatory gene for actinorhodin production in
RT
RT
     Streptomyces lividans involves a LysR-type transcriptional
RT
     regulator.";
     J. Bacteriol. 181:4353-4364(1999).
RL
     EMBL; Y18818; CAB51138.1; -.
DR
     Hypothetical protein.
KW
    NON TER
FT
                   1
     SEOUENCE
               11 AA; 1160 MW; D1BABA8EC1EDC412 CRC64;
SO
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
             2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
           10 RA 11
Qу
              11
Db
            5 RA 6
RESULT 16
Q7X566
ID
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
    Q7X566
AC
     Q7X566;
     01-OCT-2003 (TrEMBLrel. 25, Created)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
DE
    Hypothetical protein (Fragment).
OS
    Thermus thermophilus.
     Bacteria; Deinococcus-Thermus; Deinococci; Thermales; Thermaceae;
OC
OC
    Thermus.
```

```
NCBI TaxID=274;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Miyazaki T., Miyazaki J., Nishiyama M., Yamane H.;
RT
     "Characterization of a LysN, the 4th enzyme in lysine biosynthesis, in
RT
     an extremely thermophilic bacterium, Thermus thermophilus HB27.";
RL
     Submitted (NOV-2002) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AB097117; BAC76940.1; -.
KW
     Hypothetical protein.
     NON TER
FT
                  11
SO
     SEQUENCE
                11 AA;
                        1073 MW;
                                  39792C1E75B72EB8 CRC64;
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                               0;
            3 GG 4
Qу
              \Box
Db
            3 GG 4
RESULT 17
Q9UR95
ID
    Q9UR95
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
AC
     Q9UR95;
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
DΤ
DΕ
     Heat shock protein 60 homolog (Fragment).
     Pichia angusta (Yeast) (Hansenula polymorpha).
OS
     Eukaryota; Funqi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC
OC
     Saccharomycetales; Saccharomycetaceae; Pichia.
OX
    NCBI TaxID=4905;
RN
     [1]
RP
     SEQUENCE.
RX
    MEDLINE=93223840; PubMed=8096822;
     Evers M.E., Huhse B., Titorenko V.I., Kunau W.H., Hartl F.U.,
RA
    Harder W., Veenhuis M.;
RA
RT
     "Affinity purification of molecular chaperones of the yeast Hansenula
RT
    polymorpha using immobilized denatured alcohol oxidase.";
     FEBS Lett. 321:32-36(1993).
RL
SQ
    SEQUENCE
              11 AA; 1230 MW;
                                  71872C1779C3372B CRC64;
  Query Match
                          18.2%; Score 2; DB 3; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
 Matches
             2; Conservative
                                0; Mismatches
                                                                  0; Gaps
                                                                              0;
                                                   0; Indels
            2 EG 3
Qy
              11
           10 EG 11
Db
RESULT 18
Q9URG1
ID
    Q9URG1
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
AC
     09URG1:
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
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OX

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DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
DE
     Cytochrome C oxidase subunit 2 (Fragment).
OS
     Neurospora crassa.
OC
     Eukaryota; Funqi; Ascomycota; Pezizomycotina; Sordariomycetes;
     Sordariomycetidae; Sordariales; Sordariaceae; Neurospora.
OC
OX
     NCBI TaxID=5141;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
    MEDLINE=92035058; PubMed=1657411;
RA
     Lemire E.G., Percy J.A., Correia J.M., Crowther B.M., Nargang F.E.;
RT
     "Alteration of the cytochrome c oxidase subunit 2 gene in the [exn-5]
RT
     mutant of Neurospora crassa.";
RL
     Curr. Genet. 20:121-127(1991).
FT
    NON TER
                   1
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1222 MW;
                                  936B1558C7605DC5 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
             2; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
  Matches
            2 EG 3
Qу
              11
Db
           10 EG 11
RESULT 19
Q96V15
ID
     Q96V15
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     096V15;
     01-DEC-2001 (TrEMBLrel. 19, Created)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DE
     Pheromone alpha (Fragment).
GN
     MFALPHA1A.
     Cryptococcus neoformans var. neoformans.
OS
     Eukaryota; Fungi; Basidiomycota; Hymenomycetes; Heterobasidiomycetes;
OC
OC
     Tremellomycetidae; Tremellales; Tremellaceae; Filobasidiella.
OX
     NCBI TaxID=40410;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=IUM 98-3351;
     MEDLINE=21538945; PubMed=11682503;
RX
     Cogliati M., Esposto M.C., Clarke D.L., Wickes B.L., Viviani M.A.;
RA
     "Origin of Cryptococcus neoformans var. neoformans Diploid Strains.";
RT
     J. Clin. Microbiol. 39:3889-3894(2001).
RL
DR
     EMBL; AF377019; AAK55615.1; -.
FT
     NON TER
                   1
                          1
     NON TER
FT
                  11
                         11
     SEQUENCE
SQ
                11 AA; 1154 MW; C764AF6E786761ED CRC64;
                          18.2%; Score 2; DB 3; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                                                                              0;
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
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Db 7 GG 8
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RESULT 20
014759
                 PRELIMINARY;
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                                            11 AA.
ID
     Q14759
AC
     Q14759;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Lymphocyte cytosolic protein 2 (Fragment).
DΕ
GN
     LCP2.
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Sunden S.L.F., Carr L.L., Clements J.L, Motto D.G., Koretzky G.A.;
RA
     "Polymorphism in and localization of the gene encoding the 76 kDa SH2
RT
     domain-containing Leukocyte Protein (SLP-76) to chromosome 5q33.1-
RT
RT
     qter.";
     Genomics 0:0-0(1995).
RL
     EMBL; U44065; AAA93308.1; -.
DR
     NON TER
FT
                   1
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA;
                        1242 MW;
                                   D695104224072DDD CRC64;
SQ
  Ouery Match
                          18.2%;
                                   Score 2; DB 4; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
 Matches
             2; Conservative
                                  0; Mismatches
                                                    0; Indels
                                                                       Gaps
                                                                                0:
Qу
            1 AE 2
              \mathbf{I}
Db
            2 AE 3
RESULT 21
060761
     060761
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
AC
     060761;
DT
     01-AUG-1998 (TrEMBLrel. 07, Created)
     01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     NPT-1 protein (Fragment).
DΕ
GN
     NPT-1.
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=98207718; PubMed=9545579;
     Taketani Y., Miyamoto K., Chikamori M., Tanaka K., Yamamoto H.,
RA
     Tatsumi S., Morita K., Takeda E.;
RA
RT
     "Characterization of the 5' flanking region of the human NPT-1
```

```
Biochim. Biophys. Acta 1396:267-272(1998).
RL
DR
     EMBL; D83236; BAA25645.1; -.
FT
     NON TER
                  11
                         11
     SEOUENCE
                11 AA; 1358 MW; 884E2D4E6734044A CRC64;
SO
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                                0; Mismatches
                                                                  0; Gaps
                                                                              0;
  Matches
             2; Conservative
                                                  0; Indels
            5 KK 6
Qу
              \perp
Db
           10 KK 11
RESULT 22
075811
ID
     075811
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     075811;
DT
     01-NOV-1998 (TrEMBLrel. 08, Created)
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
DE
     ErbB-3 R2 (Fragment).
GN
     C-ERBB-3.
     Homo sapiens (Human).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
     NCBI TaxID=9606;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     TISSUE=Ovarian carcinoma;
     MEDLINE=98345147; PubMed=9681822;
RX
     Lee H., Maihle N.J.;
RA
     "Isolation and characterization of four alternate c-erbB3 transcripts
RT
RT
     expressed in ovarian carcinoma-derived cell lines and normal human
RT
     tissues.";
RL
     Oncogene 16:3243-3252(1998).
DR
     EMBL; U88358; AAC39858.1; -.
FT
     NON TER
                   1
                          1
SO
     SEOUENCE
                11 AA; 1017 MW; 21B236366EB72878 CRC64;
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
             2; Conservative
                                0; Mismatches 0; Indels
                                                                              0;
  Matches
                                                                  0; Gaps
            3 GG 4
Qу
              | | |
            4 GG 5
RESULT 23
Q9H4H5
     Q9H4H5
                                   PRT;
                                           11 AA.
                 PRELIMINARY;
ID
AC
     O9H4H5;
     01-MAR-2001 (TrEMBLrel. 16, Created)
DΤ
     01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DТ
     01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DT
```

RT

Na+/phosphate cotransporter gene.";

```
DJ661I20.2 (Novel helicase C-terminal domain and SNF2 N-terminal
DE
     domains containing protein) (Fragment).
DE
GN
     DJ620E11.1.
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
RA
     Skuce C.;
RL
     Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AL031669; CAC17164.2; -.
FT
     NON TER
                  1
                          1
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1420 MW; 5EB2C32A3326D053 CRC64;
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1e+05;
  Matches
             2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            8 KM 9
Qу
              \perp
Db
            2 KM 3
RESULT 24
Q15997
ID
     Q15997
                PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q15997;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     RARA protein (Fragment).
DE
GN
     RARA.
OS
     Homo sapiens (Human).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
     NCBI TaxID=9606;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=93222087; PubMed=7682097;
     Dong S., Geng J.P., Tong J.H., Wu Y., Cai J.R., Sun G.L., Chen S.R.,
RA
     Wang Z.Y., Larsen C.J., Berger R., et al;
RA.
     "Breakpoint clusters of the PML gene in acute promyelocytic leukemia:
RT
     primary structure of the reciprocal products of the PML-RARA gene in a
RT
     patient with t(15;17).";
RT
     Genes Chromosomes Cancer 6:133-139(1993).
     EMBL; S57794; AAD13888.1; -.
DR
DR
     PIR; I54081; I54081.
     NON TER
FT
                   1
SQ
     SEQUENCE
                11 AA; 1277 MW;
                                  33C70E22CDDDC417 CRC64;
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
             2: Conservative
                                0; Mismatches
                                                   0; Indels
                                                                              0;
           10 RA 11
```

Qγ

```
RESULT 25
O8NFN9
                                    PRT:
                                             11 AA.
ID
     O8NFN9
                 PRELIMINARY:
AC
     Q8NFN9;
DТ
     01-OCT-2002 (TrEMBLrel. 22, Created)
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΕ
     Corticotropin releasing hormone receptor 1 (Fragment).
     CRHR1.
GN
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Parham K.L., Catalano R., Hillhouse E.W.;
     "Identification of the Promoter Region of the Human Type 1 CRH
RT
RT
     Receptor Gene.";
RL
     Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
     EMBL; AF488558; AAM55213.1; -.
DR
DR
     GO; GO:0004872; F:receptor activity; IEA.
KW
     Receptor.
FT
     NON TER
                  11
                          11
     SEOUENCE
                                   ECEE030D0736C761 CRC64;
SO
                11 AA;
                         1236 MW;
  Query Match
                           18.2%;
                                   Score 2; DB 4; Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 1e+05;
  Matches
             2; Conservative
                                  0; Mismatches
                                                     0; Indels
                                                                   0:
                                                                       Gaps
                                                                                0:
            3 GG 4
Qy
              \mathbf{I}
            2 GG 3
Db
RESULT 26
09UC46
ID
     Q9UC46
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q9UC46;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
     Neutrophil inhibitor peptide, NIP=POLYMORPHONUCLEAR neutrophil
DΕ
DE
     inhibitor peptide.
os
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE.
     MEDLINE=96326114; PubMed=8703476;
RX
     Cooper J.A.Jr., Culbreth R.R.;
RA
     "Characterization of a neutrophil inhibitor peptide harvested from
RT
     human bronchial lavage: homology to influenza A nucleoprotein.";
RT
```

```
Am. J. Respir. Cell Mol. Biol. 15:207-215(1996).
RL
     GO; GO:0005576; C:extracellular; NAS.
DR
DR
     GO; GO:0030236; P:anti-inflammatory response; NAS.
SO
     SEOUENCE
                11 AA; 1262 MW; 951A1C3279C9DB45 CRC64;
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                0; Mismatches
                                                    0; Indels
                                                                               0;
  Matches
             2; Conservative
                                                                  0; Gaps
Qу
            2 EG 3
              2 EG 3
Db
RESULT 27
Q9UCR1
ID
     Q9UCR1
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
     Q9UCR1;
AC
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     AUTOTAXIN (Fragment).
DE
OS
     Homo sapiens (Human).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE.
RX
     MEDLINE=92129337; PubMed=1733949;
RA
     Stracke M.L., Krutzsch H.C., Unsworth E.J., Arestad A., Cioce V.,
RA
     Schiffmann E., Liotta L.A.;
     "Identification, purification, and partial sequence analysis of
RT
RT
     autotaxin, a novel motility-stimulating protein.";
RL
     J. Biol. Chem. 267:2524-2529(1992).
FT
     NON_TER
                   1
                          1
                  11
FT
     NON TER
                         11
                        1171 MW;
     SEQUENCE
SQ
                11 AA;
                                  2723615AA0437737 CRC64;
  Query Match
                          18.2%; Score 2; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            3 GG 4
Qy
              11
            1 GG 2
Db
RESULT 28
Q9UH72
     Q9UH72
ID
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q9UH72;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     V1-vascular vasopressin receptor AVPR1A (Fragment).
DE
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
```

```
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Thibonnier M., Willard H.F., Jeunemaitre X.;
RA
     "Study of V1-vascular vasopressin receptor gene microsatellite
RT
     polymorphisms in human essential hypertension.";
     Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF208541; AAF18470.1; -.
DR
DR
     GO; GO:0004872; F:receptor activity; IEA.
KW
     Receptor.
     NON TER
FT
                         11
                  11
     SEQUENCE
                11 AA; 1071 MW;
                                  8653B8E3B7687DC5 CRC64;
SQ
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                                                               0;
             2; Conservative
                               0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
            9 MR 10
              \parallel \parallel
Db
            1 MR 2
RESULT 29
026092
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     026092
AC
     026092;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
     Sea StAR histone H2B gene 5'region (Fragment).
OS
     Pisaster ochraceus (Sea star).
OC
     Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Asterozoa;
OC
     Asteroidea; Forcipulatacea; Forcipulatida; Asteriidae; Pisaster.
OX
     NCBI TaxID=7612;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     TISSUE=Sperm;
     Howell A.M., Cool D., Hewitt J., Ydenberg B., Smith M.J., Honda B.M.;
RA
     "Organization and Unusual Expression of Histone Genes in the Sea Star
RT
     Pisaster ochraceus.";
RT
     J. Mol. Evol. 25:29-36(1987).
RL
DR
     EMBL; X05619; CAA29106.1; -.
FT
     NON TER
                  11
                         11
                                  5173974A3865BDD3 CRC64;
     SEQUENCE
                11 AA; 1128 MW;
SQ
                          18.2%;
                                  Score 2; DB 5; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                                                                               0;
                                 0; Mismatches 0; Indels
                                                                  0;
                                                                      Gaps
  Matches
             2; Conservative
            4 GK 5
Qу
              11
            7 GK 8
Db
```

RESULT 30 Q9TWX6

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Q9TWX6
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
ΙD
AC
     Q9TWX6;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     Juvenile hormone binding protein, JHBP=12.5 kDa CNBR peptide
DE
     (Fragment).
DE
     Manduca sexta (Tobacco hawkmoth) (Tobacco hornworm).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
     Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Sphingiodea;
OC
     Sphingidae; Sphinginae; Manduca.
OX
     NCBI TaxID=7130;
RN
     [1]
RP
     SEQUENCE.
     MEDLINE=92134256; PubMed=1734862;
RX
     Touhara K., Prestwich G.D.;
RA
     "Binding site mapping of a photoaffinity-labeled juvenile hormone
RT
RT
     binding protein.";
     Biochem. Biophys. Res. Commun. 182:466-473(1992).
RL
     NON TER
                  1
                        1
FT
                  11
FT
     NON TER
                         11
     SEQUENCE
                        1071 MW; D232A98E705045BD CRC64;
SO
                11 AA;
                          18.2%; Score 2; DB 5; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
             2: Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            3 GG 4
Qу
              11
Db
            8 GG 9
RESULT 31
099292
ID
     Q99292
                 PRELIMINARY;
                                   PRT:
                                            11 AA.
AC
     Q99292;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
     Bicoid protein (Fragment).
DE
GN
     BCD.
     Drosophila heteroneura (Fruit fly).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC
     Ephydroidea; Drosophilidae; Drosophila.
OC
OX
     NCBI TaxID=32382;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=91184004; PubMed=2081457;
RX
RA
     MacDonald P.M.;
     "bicoid mRNA localization signal: phylogenetic conservation of
RT
     function and RNA secondary structure.";
RT
     Development 110:161-171(1990).
RL
     -!- FUNCTION: BICOID IS SEGMENT-POLARITY PROTEIN THAT PROVIDES
CC
         POSITIONAL CUES FOR THE DEVELOPMENT OF HEAD AND THORACIC SEGMENTS.
CC
CC
         BCD REGULATES THE EXPRESSION OF ZYGOTIC GENES, POSSIBLY THROUGH
         ITS HOMEODOMAIN, AND INHIBITS THE ACTIVITY OF OTHER MATERNAL GENE
CC
```

```
PRODUCTS. IT IS POSSIBLE THAT BCD ALSO BINDS RNA.
CC
     EMBL; M32125; AAA28386.1; -.
DR
DR
     FlyBase; FBqn0012352; Dhet\bcd.
DR
     GO; GO:0005634; C:nucleus; IEA.
    GO; GO:0003677; F:DNA binding; IEA.
DR
DR
     GO; GO:0003723; F:RNA binding; IEA.
    GO; GO:0007275; P:development; IEA.
DR
    GO; GO:0006355; P:regulation of transcription, DNA-dependent; IEA.
DR
     GO; GO:0007367; P:segment polarity determination; IEA.
DR
KW
     DNA-binding; Developmental protein; Homeobox; Nuclear protein;
KW
     RNA-binding; Segmentation polarity protein; Transcription regulation.
FT
    NON TER
                   1
                          1
     SEQUENCE
               11 AA; 1221 MW; 8CE802305DD9D6C1 CRC64;
SQ
                          18.2%; Score 2; DB 5; Length 11;
 Query Match
                         100.0%; Pred. No. 1e+05;
 Best Local Similarity
                              0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
 Matches
            2; Conservative
            3 GG 4
Qv
             11
Db
            1 GG 2
RESULT 32
Q9TWM2
    Q9TWM2
                PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
AC
    09TWM2;
DT
    01-MAY-2000 (TrEMBLrel. 13, Created)
    01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DE
    Buccalin B, BUCB.
OS
    Aplysia californica (California sea hare).
    Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
    Apogastropoda; Heterobranchia; Euthyneura; Opisthobranchia; Anaspidea;
OC
OC
    Aplysioidea; Aplysiidae; Aplysia.
OX
    NCBI TaxID=6500;
RN
    [1]
RP
    SEQUENCE.
    MEDLINE=95083478; PubMed=7991459;
RX
    Vilim F.S., Cropper E.C., Rosen S.C., Tenenbaum R., Kupfermann I.,
RA
RA
    Weiss K.R.;
     "Structure, localization, and action of buccalin B: a bioactive
RT
RT
    peptide from Aplysia.";
RL
    Peptides 15:959-969(1994).
     SEQUENCE 11 AA; 1153 MW; 692253F9C9C86B44 CRC64;
SQ
                          18.2%; Score 2; DB 5; Length 11;
 Query Match
 Best Local Similarity
                         100.0%; Pred. No. 1e+05;
                                                                             0;
                              0; Mismatches 0; Indels
                                                                 0; Gaps
 Matches
            2; Conservative
            3 GG 4
Qу
              9 GG 10
Db
```

RESULT 33 Q8MM58

```
ΙD
     Q8MM58
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q8MM58;
DT
     01-OCT-2002 (TrEMBLrel. 22, Created)
DΤ
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     Mannose phosphate isomerase (Fragment).
GN
     MPI.
OS
     Heliconius cydno chioneus.
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
     Papilionoidea; Nymphalidae; Heliconiinae; Heliconius.
OC
OX
     NCBI TaxID=171915;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=STRI-B-553-Mpi-1, and STRI-B-553-Mpi-2;
RC
     Bull V., Beltran M., Bermingham E., Jiggins C., McMillan O.,
RA
RA
     "Molecular evidence for gene flow between species of Heliconius.";
RT
     Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF516222; AAM61908.1; -.
DR
DR
     EMBL; AF516223; AAM61909.1; -.
     GO; GO:0016853; F:isomerase activity; IEA.
DR
     Isomerase.
KW
     NON TER
                   1
                          1
FT
     NON TER
FT
                  11
                         11
     SEOUENCE
                11 AA;
                       1312 MW;
                                  56A67DB31DD1EAA3 CRC64;
SO
                          18.2%; Score 2; DB 5; Length 11;
Query Match
 Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                                  0; Mismatches
                                                    0; Indels
             2; Conservative
                                                                       Gaps
            1 AE 2
            7 AE 8
RESULT 34
Q86D32
ID
     Q86D32
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q86D32;
     01-JUN-2003 (TrEMBLrel. 24, Created)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DΤ
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Histone H1 (Fragment).
DE
OS
     Trypanosoma cruzi.
     Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae; Trypanosoma.
OC
OX
     NCBI TaxID=5693;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Dm28c;
     MEDLINE=22557728; PubMed=12670512;
RX
     Sturm N.R., Vargas N.S., Westenberger S.J., Zingales B.,
RA
RA
     Campbell D.A.;
RT
     "Evidence for multiple hybrid groups in Trypanosoma cruzi.";
RL
     Int. J. Parasitol. 33:269-279(2003).
     EMBL; AF545075; AAP21903.1; -.
DR
FT
     NON TER
                  11
                         11
```

```
SQ
     SEQUENCE
               11 AA; 1114 MW; CCC1B31E7772CDDD CRC64;
 Query Match
                          18.2%; Score 2; DB 5; Length 11;
 Best Local Similarity
                         100.0%; Pred. No. 1e+05;
                                0; Mismatches
                                                                 0; Gaps
                                                                             0;
 Matches
            2; Conservative
                                                   0; Indels
            5 KK 6
Qу
              9 KK 10
Db
RESULT 35
Q86D31
                 PRELIMINARY;
                                   PRT;
ID
    Q86D31
                                           11 AA.
AC
    Q86D31;
     01-JUN-2003 (TrEMBLrel. 24, Created)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
    Histone H1 (Fragment).
OS
    Trypanosoma cruzi.
     Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae; Trypanosoma.
OC
OX
    NCBI TaxID=5693;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=Sylvio X10;
RC
    MEDLINE=22557728; PubMed=12670512;
RX
RA
    Sturm N.R., Vargas N.S., Westenberger S.J., Zingales B.,
RA
     Campbell D.A.;
RT
    "Evidence for multiple hybrid groups in Trypanosoma cruzi.";
RL
     Int. J. Parasitol. 33:269-279(2003).
DR
     EMBL; AF545076; AAP21906.1; -.
FT
    NON TER
                  11
                         11
    SEQUENCE
                11 AA; 1174 MW; CCD1B21E7772CDDD CRC64;
SO
 Query Match
                          18.2%; Score 2; DB 5; Length 11;
                         100.0%; Pred. No. 1e+05;
 Best Local Similarity
            2; Conservative
                                 0; Mismatches
                                                                              0;
 Matches
                                                   0; Indels
                                                                 0; Gaps
            5 KK 6
Qу
             11
Db
            9 KK 10
RESULT 36
Q95PX6
    Q95PX6 ·
ID
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     01-DEC-2001 (TrEMBLrel. 19, Created)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
DE
    Hypothetical protein.
     ZK1236.8.
GN
OS
    Caenorhabditis elegans.
     Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
OC
     Rhabditidae; Peloderinae; Caenorhabditis.
OC
OX
    NCBI TaxID=6239;
RN
     [1]
```

```
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Bristol N2;
RX
     MEDLINE=99069613; PubMed=9851916;
RA
RT
     "Genome sequence of the nematode C. elegans: a platform for
     investigating biology. The C. elegans Sequencing Consortium.";
RT
     Science 282:2012-2018(1998).
RL
RN
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=Bristol N2;
RA
     Favello A.;
RT
     "The sequence of C. elegans cosmid ZK1236.";
RL
     Submitted (MAY-1993) to the EMBL/GenBank/DDBJ databases.
RN
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Bristol N2;
     Waterston R.;
RA
RT
     "Direct Submission.";
RL
     Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
DR
    EMBL; L13200; AAL11108.1; -.
DR
    WormPep; ZK1236.8; CE29629.
KW
    Hypothetical protein.
SQ
     SEQUENCE
               11 AA; 1304 MW; DFA3510A25A76322 CRC64;
                          18.2%; Score 2; DB 5; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
             2: Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                   0;
                                                                      Gaps
                                                                               0;
            5 KK 6
Qу
              \mathbf{I}
            8 KK 9
RESULT 37
O9TRW5
ID
     Q9TRW5
                 PRELIMINARY;
                                    PRT:
                                            11 AA.
AC
     Q9TRW5;
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DΕ
     25 kDa protein P25, peptide F4 (Fragment).
OS
    Bos taurus (Bovine).
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC
    Bovidae; Bovinae; Bos.
OC
OX
    NCBI TaxID=9913;
RN
     [1]
RΡ
     SEQUENCE.
RX
    MEDLINE=91372400; PubMed=1909972;
     Takahashi M., Tomizawa K., Ishiquro K., Sato K., Omori A., Sato S.,
RA
RA
     Shiratsuchi A., Uchida T., Imahori K.;
     "A novel brain-specific 25 kDa protein (p25) is phosphorylated by a
RT
RT
     Ser/Thr-Pro kinase (TPK II) from tau protein kinase fractions.";
RL
    FEBS Lett. 289:37-43(1991).
FT
    NON TER
                   1
                          1
FT
    NON TER
                  11
                         11
                11 AA; 1276 MW; CAF72DAF65A76AA9 CRC64;
SQ
     SEQUENCE
```

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Ouerv Match
                          18.2%; Score 2; DB 6; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
 Matches
            2; Conservative
            4 GK 5
Qу
              11
Db
           10 GK 11
RESULT 38
Q9TRX2
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
     O9TRX2
АC
     Q9TRX2;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
     Glutamate dehydrogenase (EC 1.4.1.3) (Fragment).
DΕ
     Bos taurus (Bovine).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC.
     Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC
OC
     Bovidae; Bovinae; Bos.
     NCBI TaxID=9913;
OX
RN
     [1]
RP
     SEQUENCE.
     MEDLINE=91308094; PubMed=1854724;
RX
     Ozturk D.H., Colman R.F.;
RA
     "Identification of cysteine-319 as the target amino acid of 8-[(4-
RT
     bromo-2,3-dioxobutyl)thio]adenosine 5'-triphosphate in bovine liver
RT
     glutamate dehydrogenase.";
RT
     Biochemistry 30:7126-7134(1991).
RL
     GO; GO:0004353; F:qlutamate dehydrogenase [NAD(P)] activity; IEA.
DR
              11 AA; 1207 MW; F46BF756A771B401 CRC64;
SO
     SEQUENCE
  Query Match
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  Best Local Similarity
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                                 0; Mismatches
                                                                              0;
  Matches
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                                                   0; Indels
                                                                  0; Gaps
            3 GG 4
Qу
              \mathbf{I}
           10 GG 11
Db
RESULT 39
Q9TQS9
ID
     Q9TQS9
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
AC
     Q9TQS9;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
     Transferrin (Fragment).
DE
     Equus caballus (Horse).
os
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
OX
     NCBI TaxID=9796;
RN
     [1]
RP
     SEQUENCE FROM N.A.
```

```
Giffard J.M., Brandon R.B., Bell T.K.;
RA
     "Further identification of single nucleotide polymorphisms in the
RT
RT
     equine transferrin gene.";
     Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AF185800; AAF05495.1; -.
     EMBL; AF185797; AAF05492.1; -.
DR
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DR
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     EMBL; AF185799; AAF05494.1; -.
FT
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SQ
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                                                                              0;
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
  Matches
            9 MR 10
Qу
              \mathbf{I}
Db
            1 MR 2
RESULT 40
077892
                                            11 AA.
     077892
                 PRELIMINARY;
                                   PRT;
ID
AC
     077892;
     01-NOV-1998 (TrEMBLrel. 08, Created)
DΤ
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     MHC class II B locus 10 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
OC
     Acanthomorpha; Acanthopteryqii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OX
     NCBI TaxID=8128;
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RP
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RX
     MEDLINE=98315113; PubMed=9649539;
RA
     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
RT
     Genetics 149:1527-1537(1998).
RL
     EMBL; AF050002; AAC41341.1; -.
DR
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FT
                          1
                  11
     NON TER
FT
                         11
SQ
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                11 AA; 1277 MW; 74855B73786B572B CRC64;
                          18.2%; Score 2; DB 7; Length 11;
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                          100.0%; Pred. No. 1e+05;
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
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            3 GG 4
Qy
              11
            7 GG 8
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077880
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ID
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AC
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     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     MHC class II B locus 2 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OC
OX
     NCBI TaxID=8128;
RN
     [1]
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RP
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RX
     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
RT
     Genetics 149:1527-1537(1998).
RL
     EMBL; AF049989; AAC41328.1; -.
DR
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FT
     NON TER
                         11
                  11
FT
                11 AA; 1346 MW; AB5F2D9822D2DB56 CRC64;
SO
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                          18.2%; Score 2; DB 7; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
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                                                                  0; Gaps
                                                                               0;
                                                    0; Indels
                Conservative
  Matches
            2;
            8 KM 9
Qу
              \mathbf{I}
Dh
            3 KM 4
RESULT 42
077906
                                    PRT;
                                            11 AA.
ID
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AC
     077906;
     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     MHC class II B locus 1 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
OC
     Cichlidae; Oreochromis.
     NCBI TaxID=8128;
OX
RN
     [1]
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RP
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RX
     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
RT
     class II B loci.";
RL
     Genetics 149:1527-1537(1998).
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NON TER
FT
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                         1
    NON TER
                  11
                         11
FT
                                 74855B73786B572B CRC64;
     SEQUENCE
                11 AA; 1277 MW;
SO
                          18.2%; Score 2; DB 7; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1e+05;
            2; Conservative 0; Mismatches
                                                  0: Indels
                                                                     Gaps
                                                                              0;
 Matches
            3 GG 4
Qу
             +
            7 GG 8
Db
RESULT 43
077893
                 PRELIMINARY;
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                                           11 AA.
ΙD
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AC
     077893;
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DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
    MHC class II B locus 10 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
OC
     Cichlidae; Oreochromis.
OX
     NCBI TaxID=8128;
RN
     [1]
RΡ
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RX
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     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
RT
     class II B loci.";
     Genetics 149:1527-1537(1998).
RL
     EMBL; AF050003; AAC41342.1; -.
DR
FT
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                  1
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     NON TER
                  11
                         11
FT
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SQ
                          18.2%; Score 2; DB 7; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            2; Conservative
            3 GG 4
Qу
              11
            .7 GG 8
Db
RESULT 44
077907
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
     077907
AC
     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
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EMBL; AF050016; AAC41355.1; -.

DR

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MHC class II B locus 2 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OC
     NCBI TaxID=8128;
OX
RN
     [1]
RP
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RX
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    Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
RT
     Genetics 149:1527-1537(1998).
RL
     EMBL; AF050018; AAC41357.1; -.
DR
FT
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                          1
     NON TER
                  11
                         11
FT
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SQ
                          18.2%; Score 2; DB 7; Length 11;
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  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
            2; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                              0;
            8 KM 9
Qу
              11
Db
            3 KM 4
RESULT 45
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                                   PRT:
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ID
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AC
     Q9G5Y0;
DT
     01-MAR-2001 (TrEMBLrel. 16, Created)
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DΕ
     Cytochrome c oxidase subunit I (Fragment).
GN
     COI.
     Pseudotrapelus sinaitus.
OS
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Agaminae;
OC
OC
     Pseudotrapelus.
OX
     NCBI TaxID=118229;
RN
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RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=22114082; PubMed=12118408;
RA
     Macey J.R., Schulte J.A. II, Larson A.;
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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RP
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RX
     MEDLINE=22114081; PubMed=12118407;
     Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
```

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RT
     phylogenetics.";
     Syst. Biol. 49:233-256(2000).
RL
     EMBL; AF128507; AAG00758.1; -.
DR
DR
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ΚW
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SO
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                          18.2%; Score 2; DB 8; Length 11;
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                Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
             2;
            8 KM 9
Qу
              1.1
            3 KM 4
Db
RESULT 46
Q9G356
                                   PRT;
                                            11 AA.
     Q9G356
                 PRELIMINARY;
ΙD
     09G356;
AC
     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
OS
     Agama atra (Southern rock agama).
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Agaminae; Agama.
OC
OX
     NCBI TaxID=52208;
RN
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RP
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RX
     MEDLINE=97153820; PubMed=9000751;
RA
     Macey J.R., Larson A., Ananjeva N.B., Papenfuss T.J.;
RT
     "Replication slippage may cause parallel evolution in the secondary
     structures of mitochondrial transfer RNAs.";
RT
RL
     Mol. Biol. Evol. 14:30-39(1997).
RN
     [2]
     SEQUENCE FROM N.A.
RP
     MEDLINE=22114082; PubMed=12118408;
RX
     Macey J.R., Schulte J.A. II, Larson A.;
RA
RT
     "Evolution and information content of the mitochondrial genomic
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
     [3]
RΡ
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RX
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     Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
RT
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
DR
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DR
KW
     Mitochondrion.
FT
     NON TER
                  11
                         11
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SEQUENCE 11 AA; 1402 MW; B052EC10D36411A6 CRC64;
SO
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           2; Conservative 0; Mismatches
                                                  0; Indels
           8 KM 9
Qу
             Db
            3 KM 4
RESULT 47
038415
ID
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                                  PRT:
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    Q38415
     Q38415;
АC
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DΕ
    Ant1 protein (Fragment).
    Bacteriophage P7.
OS
    Viruses; dsDNA viruses, no RNA stage; Caudovirales; Myoviridae;
OC
OC
    P1-like viruses.
    NCBI TaxID=10682;
OX
RN
    [1]
RP
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    MEDLINE=90335968; PubMed=1696181;
RX
    Citron M., Schuster H.;
RA
    "The c4 repressors of bacteriophages P1 and P7 are antisense RNAs.";
RT
RL
    Cell 62:591-598(1990).
RN
    SEQUENCE FROM N.A.
RP
    MEDLINE=92319637; PubMed=1620606;
RX
RA
     Citron M., Schuster H.;
RT
     "The c4 repressor of bacteriophage P1 is a processed 77 base antisense
RT
    RNA.";
RL
    Nucleic Acids Res. 20:3085-3090(1992).
DR
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DR
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FT
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                                                                            0;
 Matches
Qу
            5 KK 6
             11
            2 KK 3
Db
RESULT 48
037925
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ID
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AC
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DT
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     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
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Bacteriophage fr replicase (Fragment).
DΕ
    Bacteriophage fr.
OS
    Viruses; ssRNA positive-strand viruses, no DNA stage; Leviviridae;
OC
OC
    Levivirus.
OX
    NCBI TaxID=12017;
RN
    [1]
RP
     SEQUENCE FROM N.A.
     Berzin V.M., Gribanov V.A., Cielens I.E., Jansone I.V., Gren E.J.;
RA
     "The nucleotide sequence of the regulatory region of phage fr
RT
     replicase cistron.";
RT
    Bioorg. Khim. 7:306-308(1981).
RL
    EMBL; M34834; AAA32193.1; -.
DR
                 11
FT
    NON TER
                         11
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                11 AA; 1285 MW; 8BD43470C33321B1 CRC64;
SQ
                          18.2%; Score 2; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1e+05;
            2; Conservative
                                                                 0; Gaps
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                                 0; Mismatches
                                                   0; Indels
 Matches
            5 KK 6
Qу
              11
            6 KK 7
Db
RESULT 49
Q39784
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                                           11 AA.
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ID
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AC
    039784;
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last annotation update)
DT
     Alcohol dehydrogenase 2b-2 (Fragment).
DE
OS
     Gossypium hirsutum (Upland cotton).
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Gossypium.
OX
    NCBI TaxID=3635;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Blue Tag Siokra;
RA
    Millar A.A., Dennis E.S.;
RL
     Submitted (APR-1996) to the EMBL/GenBank/DDBJ databases.
DR
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     NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA; 1161 MW; D67F443942D6D87D CRC64;
SQ
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                                  Score 2; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1e+05;
                                                                              0;
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           10 RA 11
Qу
              11
Db
            9 RA 10
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RESULT 50 O8RUE7

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PRT;
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ID
AC
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     01-JUN-2002 (TrEMBLrel. 21, Created)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     Alcohol dehydrogenase (Fragment).
DΕ
     ADH1.
GN
OS
     Zea mays (Maize).
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
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OC
OX
     NCBI_TaxID=4577;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Various strains;
     Ching A.S., Caldwell K.S., Jung M., Dolan M., Smith O.S., Tingey S.,
RA
     Morgante M., Rafalski J.A.;
RA
     "SNP frequency, haplotype structure and linkage disequilibrium in
RT
     elite maize inbred lines.";
RT
     Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF496880; AAM16120.1; -.
DR
     EMBL; AF496881; AAM16121.1; -.
DR
     EMBL; AF496882; AAM16122.1; -.
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DR
     EMBL; AF496884; AAM16124.1; -.
DR
     EMBL; AF496885; AAM16125.1; -.
DR
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DR
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     EMBL; AF496888; AAM16128.1; -.
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     EMBL; AF496906; AAM16146.1; -.
DR
     EMBL; AF496907; AAM16147.1; -.
     EMBL; AF496908; AAM16148.1; -.
DR
     EMBL; AF496909; AAM16149.1; -.
DR
DR
     EMBL; AF496910; AAM16150.1; -.
DR
     EMBL; AF496911; AAM16151.1; -.
FT
     NON TER
                  11
                         11
                11 AA; 1149 MW; D66AE90942C3387D CRC64;
SO
     SEQUENCE
                          18.2%; Score 2; DB 10; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
```

Best Local Similarity

```
0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
 Matches
               Conservative
            4 GK 5
Qу
              11
Db
            5 GK 6
RESULT 51
004131
    Q04131
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
АC
     Q04131;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
    Wound induced protein (Fragment).
DΕ
     Lycopersicon esculentum (Tomato).
OS
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
     lamiids; Solanales; Solanaceae; Solanum.
OC
     NCBI TaxID=4081;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=pik-red; TISSUE=Pericarp;
RC
    MEDLINE=91355936; PubMed=1715787;
RX
     Parsons B.L., Mattoo A.K.;
RA
     "Wound regulated accumulation of specific transcripts in tomato fruit:
RT
     interactions with fruit development, ethylene and light.";
RT
     Plant Mol. Biol. 17:453-464(1991).
RL
DR
     EMBL; X59884; CAA42539.1; -.
     PIR; S19775; S19775.
DR
FT
     NON TER
                   1
     SEQUENCE
                11 AA; 1278 MW;
                                  92CB257828733325 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 10; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                               0; Mismatches
                                                                  0; Gaps
  Matches
             2; Conservative
                                                    0; Indels
                                                                              0:
Qу
            5 KK 6
              11
            5 KK 6
Db
RESULT 52
P82336
ID
     P82336
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
AC
     P82336;
     01-JUN-2000 (TrEMBLrel. 14, Created)
DT
     01-JUN-2000 (TrEMBLrel. 14, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Unknown protein from 2D-page of thylakoid (SPOT125) (Fragment).
DΕ
     Pisum sativum (Garden pea).
OS
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
OC
     eurosids I; Fabales; Fabaceae; Papilionoideae; Vicieae; Pisum.
OX
     NCBI TaxID=3888;
RN
     [1]
     SEQUENCE, SUBCELLULAR LOCATION, AND DEVELOPMENTAL STAGE.
RP
```

```
STRAIN=cv. DE GRACE; TISSUE=LEAF;
RC
     MEDLINE=20181728; PubMed=10715320;
RX
     Peltier J.-B., Friso G., Kalume D.E., Roepstorff P., Nilsson F.,
RA
     Adamska I., van Wijk K.J.;
RA
     "Proteomics of the chloroplast: systematic identification and
RT
     targeting analysis of lumenal and peripheral thylakoid proteins.";
RT
     Plant Cell 12:319-341(2000).
RL
     -!- SUBCELLULAR LOCATION: CHLOROPLAST THYLAKOID MEMBRANE LUMEN OR
CC
CC
         PERIPHERY.
CC
     -!- DEVELOPMENTAL STAGE: UNFOLDED AND FULLY DEVELOPED LEAVES.
     -!- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN
CC
         PROTEIN IS: 5.8, ITS MW IS: 45.8 KDA.
CC
     GO; GO:0009507; C:chloroplast; IEA.
DR
     GO; GO:0009579; C:thylakoid; IEA.
DR
KW
     Chloroplast; Thylakoid.
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1255 MW;
                                  13511E6EDB1DDB10 CRC64;
SO
                          18.2%; Score 2; DB 10; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
            2; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
  Matches
            1 AE 2
Qу
              11
            2 AE 3
Db
RESULT 53
Q99N81
     099N81
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
ID
AC
     099N81:
DT
     01-JUN-2001 (TrEMBLrel. 17, Created)
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
DT
DE
     Delta like 1 (Fragment).
GN
     DLL1.
OS
     Mus musculus (Mouse).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OC
OX
     NCBI TaxID=10090;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Nakayama K.;
RA
     "Multiple POU-binding motifs, recognized by tissue-specific nuclear
RT
     factor(S), are important for Dll1 gene expression in developing neural
RT
     precursor cells.";
RT
RL
     Submitted (OCT-2000) to the EMBL/GenBank/DDBJ databases.
     EMBL; AB050457; BAB43867.1; -.
DR
FT
     NON TER
                  11
                         1.1
     SEQUENCE
                11 AA; 1259 MW; 33C3634CBDC40B07 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 11; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1e+05;
                                                                              0;
             2; Conservative 0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
           10 RA 11
Qу
```

11

```
RESULT 54
09R1N6
                                    PRT;
                                            11 AA.
ID
     09R1N6
                 PRELIMINARY;
AC
     Q9R1N6;
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
     Glucosidase II alpha-subunit (Fragment).
DΕ
    Mus musculus (Mouse).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OC
OX
     NCBI TaxID=10090;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=99150222; PubMed=10024665;
    Arendt C.W., Dawicki W., Ostergaard H.L.;
RA
     "Alternative splicing of transcripts encoding the alpha- and beta-
RT
     subunits of mouse glucosidase II in T lymphocytes.";
RT
     Glycobiology 9:277-283(1999).
RL
     EMBL; AF066060; AAD43363.1; -.
DR
     EMBL; AF066059; AAD43363.1; JOINED.
DR
FT
     NON TER
                   1
                           1
     NON TER
                  11
                         11
FT
     SEOUENCE
                11 AA;
                        1106 MW;
                                  8EB4DA6C7DC1A455 CRC64;
SQ
  Query Match
                           18.2%;
                                  Score 2;
                                             DB 11;
                                                     Length 11;
                           100.0%; Pred. No. 1e+05;
  Best Local Similarity
 Matches
             2; Conservative
                                  0: Mismatches
                                                    0; Indels
                                                                   0;
                                                                       Gaps
                                                                               0;
Qу
            4 GK 5
              11
            8 GK 9
RESULT 55
09Z1H5
                                    PRT;
                                            11 AA.
ID
     Q9Z1H5
                 PRELIMINARY;
AC
     Q9Z1H5;
     01-MAY-1999 (TrEMBLrel. 10, Created)
DT
     01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Insulin receptor (Fragment).
OS
     Mus musculus (Mouse).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OC
OX
     NCBI TaxID=10090;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=94365199; PubMed=8083370;
RX
     Huang Z., Bodkin N.L., Ortmeyer H.K., Hansen B.C., Shuldiner A.R.;
RA
RT
     "Hyperinsulinemia is associated with altered insulin receptor mRNA
RT
     splicing in muscle of the spontaneously obese diabetic rhesus
     monkey.";
RT
RL
     J. Clin. Invest. 94:1289-1296(1994).
```

```
[2]
RN
RP
     SEQUENCE FROM N.A.
RA
    Ying L.;
     Submitted (JUN-1995) to the EMBL/GenBank/DDBJ databases.
RL
RN
     SEQUENCE FROM N.A.
RP
     Liu Y.;
RA
     Submitted (DEC-1998) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; L42997; AAC96365.1; -.
DR
     GO; GO:0004872; F:receptor activity; IEA.
DR
KW
     Receptor.
    NON TER
                   1
                          1
FT
     NON TER
                  11
                         11
FT
                11 AA; 1052 MW; 9C25F7BAD8744865 CRC64;
     SEQUENCE
SQ
                          18.2%; Score 2; DB 11; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                                                              0;
             2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
 Matches
            1 AE 2
Qу
              1.1
            8 AE 9
Db
RESULT 56
P81075
                                           11 AA.
ID
     P81075
                 PRELIMINARY;
                                   PRT;
AC
     P81075; P97898; Q64728;
     01-JAN-1998 (TrEMBLrel. 05, Created)
DΤ
     01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
     Major urinary protein 3 (MUP 3) (Fragment).
DE
     MUP1.
GN
     Mus musculus (Mouse).
os
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OC
OX
     NCBI TaxID=10090;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=C57BL/6J;
RC
RX
     MEDLINE=88065510; PubMed=2824995;
     Held W.A., Gallagher J.F., Hohman C.M., Kuhn N.J., Sampsell B.M.,
RA
RA.
     Hughes R.G. Jr.;
     "Identification and characterization of functional genes encoding the
RT
RT
     mouse major urinary proteins.";
RL
     Mol. Cell. Biol. 7:3705-3712(1987).
     -!- FUNCTION: BINDS PHEROMONES, THE PHEROMONES ARE RELEASED FROM
CC
         DRYING URINE OF MALES AND AFFECT THE SEXUAL BEHAVIOUR OF FEMALES.
CC
CC
     -!- TISSUE SPECIFICITY: ABUNDANT IN THE URINE OF BOTH MALES AND
CC
         FEMALES. SYNTHESIZED IN THE LIVER AND MAMMARY GLAND.
CC
     -!- SIMILARITY: THIS PROTEIN BELONGS TO THE FAMILY OF SMALL
         HYDROPHOBIC MOLECULE TRANSPORT PROTEINS.
CC
     EMBL; M17816; AAA40542.1; -.
DR
     EMBL; M17818; AAA40543.1; -.
DR
     PIR; 177447; 177447.
DR
DR
     MGD; MGI:97233; Mup1.
DR
     GO; GO:0005550; F:pheromone binding; IEA.
```

```
GO; GO:0006810; P:transport; IEA.
DR
     Pheromone-binding; Transport; Lipocalin; Multigene family.
ΚW
                                   MISSING (IN AAA40543).
     CONFLICT
                          4
FT
                   4
     NON TER
                  11
                         11
FT
                        1248 MW; 5B16D68E27272727 CRC64;
SO
     SEQUENCE
                11 AA;
                          18.2%; Score 2; DB 11; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                 0; Mismatches
                                                        Indels
                                                                   0;
                                                                       Gaps
                                                                               0;
  Matches
             2; Conservative
                                                    0;
            8 KM 9
Qу
              \mathbf{H}
            2 KM 3
Db
RESULT 57
Q80WI3
                                    PRT:
                                            11 AA.
     CIW08D
                 PRELIMINARY;
ID
AC
     080WI3;
     01-JUN-2003 (TrEMBLrel. 24, Created)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
     Somatostatin receptor subtype 4 (Fragment).
DE
GN
     RSSTR4.
OS
     Rattus sp.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OC
     NCBI TaxID=10118;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=95134278; PubMed=7832807;
RX
     Xu Y., Bruno J.F., Berelowitz M.;
RA
RT
     "Characterization of the proximal promoter region of the rat
RT
     somatostatin receptor gene, SSTR4.";
     Biochem. Biophys. Res. Commun. 206:935-941(1995).
RL
     EMBL; S75475; AAP31686.1; -.
DR
     GO; GO:0004872; F:receptor activity; IEA.
DR
KW
     Receptor.
     NON TER
                  11
                         11
\mathbf{FT}
                11 AA; 1071 MW; 2820DE0E6731ADC7 CRC64;
     SEQUENCE
SQ
  Query Match
                           18.2%; Score 2; DB 11;
                                                     Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                                                                                0;
  Matches
                Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                   0;
                                                                       Gaps
             2;
            3 GG 4
Qу
              11
           10 GG 11
Db
RESULT 58
083083
     083083
                 PRELIMINARY;
                                    PRT:
                                            11 AA.
ID
AC
     083083;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
```

```
DΕ
    P13 mini peptide.
     Leucania separata nuclear polyhedrosis virus (LsNPV).
OS
    Viruses; dsDNA viruses, no RNA stage; Baculoviridae;
OC
     Nucleopolyhedrovirus.
OC
OX
    NCBI TaxID=41714;
RN
     [1]
RP
     SEQUENCE FROM N.A.
    MEDLINE=96140622; PubMed=8572949;
RX
    Wang J.W., Qi Y.P., Huang Y.X., Li S.D.;
RA
     "Nucleotide sequence of a 1446 base pair SalI fragment and structure
RT
    of a novel early gene of Leucania seperata nuclear polyhedrosis
RT
RT
    virus.";
    Arch. Virol. 140:2283-2291(1995).
RL
     EMBL; U30303; AAA99737.1; -.
DR
              11 AA; 1339 MW; F7BDBE0BD40DC401 CRC64;
    SEQUENCE
SQ
                          18.2%; Score 2; DB 12; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1e+05;
            2; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
 Matches
            2 EG 3
Qу
             11
           10 EG 11
Db
RESULT 59
Q9J1G3
                                           11 AA.
                 PRELIMINARY;
                                   PRT;
ΙD
     Q9J1G3
AC
     09J1G3;
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DΤ
     01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
DT
DE
    ORF2.
OS
     TT virus.
     Viruses; ssDNA viruses; Circoviridae; Anellovirus.
OC
     NCBI TaxID=68887;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=TTV-SC314;
     MEDLINE=20251008; PubMed=10790123;
RX
RA
     Niel C., Saback F.L., Lampe E.;
     "Coinfection with Multiple TT Virus Strains Belonging to Different
RT
     Genotypes Is a Common Event in Brazilian Healthy Adults.";
RT
     J. Clin. Microbiol. 38:1926-1930(2000).
RL
DR
     EMBL; AF216458; AAF66894.1; -.
              11 AA; 1264 MW; D044FE23F771B5B9 CRC64;
SO
     SEQUENCE
                          18.2%; Score 2; DB 12; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1e+05;
                                                                             0;
                                                                 0; Gaps
  Matches
             2; Conservative
                               0; Mismatches
                                                0; Indels
            1 AE 2
Qy
             . | |
            2 AE 3
Dh
```

```
040974
     040974
                                    PRT;
                                            11 AA.
ID
                 PRELIMINARY:
     040974:
AC
     01-JAN-1998 (TrEMBLrel. 05, Created)
DT
     01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Unidentified protein (Fragment).
DE
OS
     Cauliflower mosaic virus.
     Viruses; Retroid viruses; Caulimoviridae; Caulimovirus.
OC
OX
     NCBI TaxID=10641;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=90320145; PubMed=2371775;
RX
     Vaden V.R., Melcher U.K.;
RA
     "Recombination sites in Cauliflower mosaic virus DNAs: Implications
RT
     for mechanisms of recombination.";
RT
     Virology 177:717-726(1990).
RL
     EMBL; M32808; AAA46361.1; -.
DR
     NON TER
                   1
FT
                          1
                  11
     NON TER
                         11
FT
                11 AA; 1155 MW;
     SEQUENCE
                                  95F0E0D1DAA1E05A CRC64;
SO
                          18.2%; Score 2; DB 12; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                                                               0;
             2: Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
  Matches
            4 GK 5
Qу
              II
           10 GK 11
RESULT 61
Q8UUP1
     Q8UUP1
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
TD
AC
     Q8UUP1;
DT
     01-MAR-2002 (TrEMBLrel. 20, Created)
DT
     01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT
     01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DE
     Beta-TrCP protein (Fragment).
     BETA-TRCP.
GN
OS
     Xenopus laevis (African clawed frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
OC
OC
     Xenopodinae; Xenopus.
OX
     NCBI TaxID=8355;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Carnevali F.;
RA
RL
     Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.
RN
     [2]
     SEQUENCE FROM N.A.
RP
     Ballarino M.;
RA
RT
     "Analisi strutturale e funzionale del gene beta-TrCP in Xenopus
RT
     laevis.";
RL
     Thesis (2001), Department of Genetica e Biologia Molecolare,
RL
     University of Rome La Sapienza, Rome, Italy.
DR
     EMBL; AJ428930; CAD21927.1; -.
```

```
FT
     NON TER
                  11
                         11
                        1195 MW; CEB938EE35BEA5B9 CRC64;
SO
     SEOUENCE
                11 AA;
                          18.2%; Score 2; DB 13; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             2; Conservative
            2 EG 3
Qγ
              \perp1
            2 EG 3
Db
RESULT 62
Q8JGW8
                                   PRT;
                                           11 AA.
     Q8JGW8
                 PRELIMINARY;
ID
AC
     O8JGW8;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
     Rhodopsin (Fragment).
DE
     Ficedula albicollis.
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Archosauria; Aves; Neognathae; Passeriformes; Muscicapidae; Ficedula.
OC
     NCBI TaxID=59894;
OX
    [1]
RN
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=C2B;
     MEDLINE=21918460; PubMed=11918793;
RX
     Primmer C.R., Borge T., Lindell J., Saetre G.P.;
RA
     "Single-nucleotide polymorphism characterization in species with
RT
     limited available sequence information: high nucleotide diversity
RT
     revealed in the avian genome.";
RT
RL
     Mol. Ecol. 11:603-612(2002).
DR
     EMBL; AY069952; AAL50206.1; -.
FT
     NON TER
                   1
                          1
FT
     NON TER
                  11
                         11
                11 AA; 1226 MW; 7309D562D9C9C87B CRC64;
SQ
     SEQUENCE
  Query Match
                          18.2%; Score 2; DB 13; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
 Matches
             2; Conservative
            2 EG 3
Qу
              11
Db
            4 EG 5
RESULT 63
Q90735
ID
     090735
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     090735;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
     Beta-globin gene (Fragment).
OS
     Gallus gallus (Chicken).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
```

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Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC
OC
     Gallus.
     NCBI TaxID=9031;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=81208060; PubMed=6263308;
    Day L.E., Hirst A.J., Lai E.C., Mace M.Jr., Woo S.L.C.;
RA
     "5' domain and nucleotide sequence of an adult chicken chromosomal
RT
     beta-globin gene.";
RT
     Biochemistry 20:2091-2098(1981).
RL
     EMBL; V00378; CAA23677.1; -.
DR
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1372 MW; 271C02021B1DC1B3 CRC64;
SQ
                          18.2%; Score 2; DB 13; Length 11;
 Query Match
                         100.0%; Pred. No. 1e+05;
  Best Local Similarity
                              0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                              0;
 Matches
             2; Conservative
            1 AE 2
Qу
             11
            6 AE 7
Db
RESULT 64
Q98YS3
                                   PRT;
                                           11 AA.
ID
    Q98YS3
                 PRELIMINARY;
AC
     Q98YS3;
     01-JUN-2001 (TrEMBLrel. 17, Created)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
     Truncated pol protein (Fragment).
DΕ
GN
os
     Human immunodeficiency virus 1.
OC
    Viruses; Retroid viruses; Retroviridae; Lentivirus.
OX
     NCBI TaxID=11676;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=985829;
RA
     Schmidt B., Walter H., Moschik G., Paatz C., Werwein M., Schwingel E.,
RA
     Korn K.;
RT
     "Recovery of HIV-1 pol gene sequences by direct sequencing of
RT
     amplification products derived from plasma samples.";
     Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AF347394; AAK32471.1; -.
FT
     NON TER
                   1
                          1
SQ
     SEQUENCE
                11 AA; 1195 MW; E96941B8D878773A CRC64;
  Query Match
                          18.2%; Score 2; DB 15; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
             2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            3 GG 4
Qy
              11
Db
            6 GG 7
```

```
P88018
                 PRELIMINARY:
                                    PRT;
                                            11 AA.
TD
     P88018
     P88018;
AC
     01-MAY-1997 (TrEMBLrel. 03, Created)
DT
     01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
     Envelope glycoprotein, C2-V5 region (Fragment).
DΕ
GN
     Human immunodeficiency virus 1.
OS
     Viruses; Retroid viruses; Retroviridae; Lentivirus.
OC
     NCBI TaxID=11676;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=97138372; PubMed=8985398;
RX
     Ganeshan S., Dickover R.E., Korber B.T., Bryson Y.J., Wolinsky S.M.;
RA
     "Human immunodeficiency virus type 1 genetic evolution in children
RT
     with different rates of development of disease.";
RT
     J. Virol. 71:663-677(1997).
RL
     EMBL; U48172; AAC56320.1; -.
DR
     NON TER
                   1
                          1
FT
                11 AA; 1189 MW;
     SEQUENCE
                                  8E11B0D71B1DD735 CRC64;
SO
                          18.2%; Score 2; DB 15; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
             2; Conservative
                                                                               0;
                                0; Mismatches
                                                   0; Indels
                                                                   0; Gaps
  Matches
            1 AE 2
Qу
              \perp
            6 AE 7
Db
RESULT 66
Q9AIY6
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     O9AIY6
AC
     Q9AIY6;
DT
     01-JUN-2001 (TrEMBLrel. 17, Created)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     Tryptophanyl-tRNA synthetase (Fragment).
GN
     TRPS.
OS
     Carsonella ruddii.
     Bacteria; Proteobacteria; Gammaproteobacteria; Candidatus Carsonella.
OC
OX
     NCBI TaxID=114186;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=20336438; PubMed=10877784;
     Thao M.L., Moran N.A., Abbot P., Brennan E.B., Burckhardt D.H.,
RA
     Baumann P.;
RA
RT
     "Cospeciation of psyllids and their primary prokaryotic
RT
     endosymbionts.";
     Appl. Environ. Microbiol. 66:2898-2905(2000).
RL
RN
     [2]
RP
     SEQUENCE FROM N.A.
     MEDLINE=21125546; PubMed=11222582;
RX
RA
     Clark M.A., Baumann L., Thao M.L., Moran N.A., Baumann P.;
     "Degenerative Minimalism in the Genome of a Psyllid Endosymbiont.";
RT
RL
     J. Bacteriol. 183:1853-1861(2001).
```

```
GO; GO:0004812; F:tRNA ligase activity; IEA.
DR
ΚW
     Aminoacyl-tRNA synthetase.
FT
     NON TER
                  1
                11 AA; 1295 MW; 0CA993A5345B5720 CRC64;
SO
     SEQUENCE
                           9.1%; Score 1; DB 2; Length 11;
 Query Match
                         100.0%; Pred. No. 7.4e+05;
  Best Local Similarity
             1; Conservative 0; Mismatches 0;
                                                                 0; Gaps
                                                                              0;
 Matches
                                                      Indels
            5 K 5
Qу
              -
            8 K 8
Dh
RESULT 67
068237
                                           11 AA.
                 PRELIMINARY;
                                   PRT;
    068237
ID
     068237;
AC
     01-AUG-1998 (TrEMBLrel. 07, Created)
DT
     01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Plasmid cp32-4, possible partition proteins (Fragment).
DΕ
     Borrelia burgdorferi (Lyme disease spirochete).
OS
OG
     Plasmid cp32-4.
     Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Borrelia.
OC
OX
     NCBI TaxID=139;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=B31;
RC
     MEDLINE=98361033; PubMed=9695920;
RX
     Stevenson B., Casjens S., Rosa P.;
RA
     "Evidence of past recombination events among the genes encoding the
RT
RT
     Erp antigens of Borrelia burgdorferi.";
    Microbiology 144:1869-1879(1998).
RL
     EMBL; AF022481; AAC35449.1; -.
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
DR
KW
     Plasmid.
     NON TER
\Gamma T
                  11
                         11
     SEQUENCE
                11 AA; 1237 MW; 50E3B714D45B5DD7 CRC64;
SO
                           9.1%; Score 1; DB 2; Length 11;
  Query Match.
  Best Local Similarity
                          100.0%; Pred. No. 7.4e+05;
                                                                              0:
            1; Conservative
                                0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
  Matches
            9 M 9
Qу
            1 M 1
Db
RESULT 68
Q48933
                                   PRT;
                                           11 AA.
ID
     Q48933
                 PRELIMINARY;
     Q48933; P77701; Q48932;
AC
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
```

EMBL; AF211138; AAK15388.1; -.

DR

```
Alkyl hydroperoxide reductase C (Fragment).
DE
GN
     AHPC.
     Mycobacterium bovis.
OS
     Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
OC
OC
     Corynebacterineae; Mycobacteriaceae; Mycobacterium.
OX
     NCBI TaxID=1765;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=ATCC35728, and ATCC35727;
RC
     Zhang Y., Deretic V.;
RA
     Submitted (MAY-1996) to the EMBL/GenBank/DDBJ databases.
RL
RN
RP
     SEQUENCE FROM N.A.
     STRAIN=ATCC35735;
RC
     MEDLINE=96256622; PubMed=8655566;
RX
     Dhandayuthapani S., Zhang Y., Deretic V.;
RA
     "Oxidative stress response and its role in sensitivity to isoniazid in
RT
     mycobacteria: characterization and inducibility of ahpC by peroxides in
RT
     Mycobacterium smegmatis and lack of expression in M. aurum and M.
RT
     tuberculosis.";
RT
     J. Bacteriol. 178:3641-3649(1996).
RL
     EMBL; U58031; AAB00320.1; -.
DR
     EMBL; U57979; AAA99830.1; -.
DR
     EMBL; U57978; AAA99829.1; -.
DR
     EMBL; U57762; AAB00317.1; -.
DR
     NON TER
FT
                  11
                         11
                        1231 MW;
                                  455099E3A87041A7 CRC64;
     SEQUENCE
                11 AA;
SQ
                           9.1%;
                                  Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 7.4e+05;
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
             1; Conservative
            3 G 3
Qу
            7 G 7
Db
RESULT 69
Q47451
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ΙD
     Q47451
AC.
     Q47451;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Plasmid pRJ1004 DNA (Fragment).
OS
     Escherichia coli.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
OC
     Enterobacteriaceae; Escherichia.
OX
     NCBI TaxID=562;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=pRJ1004;
     MEDLINE=96130847; PubMed=8594334;
RX
     Brown N.L., Barrett S.R., Camakaris J., Lee B.T., Rouch D.A.;
RA
RT
     "Molecular genetics and transport analysis of the copper-resistance
     determinants (pco) from Escherichia coli plasmid pRJ1004.";
RT
RL
     Mol. Microbiol. 17:1153-1166(1995).
```

```
DR EMBL; X83541; CAA58524.1; -.
     PIR; S70166; S52252.
DR
    NON TER
                  11
FT
                         11
                                  47D864F8ADC1A057 CRC64;
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SQ
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 7.4e+05;
  Best Local Similarity
                                                                              0;
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
 Matches
             1; Conservative
            9 M 9
Qу
Db
            1 M 1
RESULT 70
Q9AIZ7
                                   PRT;
                                           11 AA.
                 PRELIMINARY;
ID
     Q9AIZ7
AC
     Q9AIZ7;
     01-JUN-2001 (TrEMBLrel. 17, Created)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Tryptophanyl-tRNA synthetase (Fragment).
DΕ
GN
    TRPS.
OS
     Carsonella ruddii.
     Bacteria; Proteobacteria; Gammaproteobacteria; Candidatus Carsonella.
OC
OX
    NCBI TaxID=114186;
RN
     [1]
RP
     SEQUENCE FROM N.A.
    MEDLINE=20336438; PubMed=10877784;
RX
     Thao M.L., Moran N.A., Abbot P., Brennan E.B., Burckhardt D.H.,
RA
RA
     Baumann P.;
     "Cospeciation of psyllids and their primary prokaryotic
RT
     endosymbionts.";
RT
     Appl. Environ. Microbiol. 66:2898-2905(2000).
RL
RN
     [2]
     SEQUENCE FROM N.A.
RP
     MEDLINE=21125546; PubMed=11222582;
RX
     Clark M.A., Baumann L., Thao M.L., Moran N.A., Baumann P.;
RA
    "Degenerative Minimalism in the Genome of a Psyllid Endosymbiont.";
RT
     J. Bacteriol. 183:1853-1861(2001).
RL
DR
     EMBL; AF211132; AAK15377.1; -.
DR
     GO; GO:0004812; F:tRNA ligase activity; IEA.
KW
     Aminoacyl-tRNA synthetase.
     NON TER
FT
                   1
                          1
     SEQUENCE
                11 AA; 1333 MW; A28C67D6533059C6 CRC64;
SQ
  Query Match
                           9.1%;
                                  Score 1; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 7.4e+05;
                                                                              0;
  Matches
             1; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
            9 M 9
Qу
            4 M 4
Db
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RESULT 71 Q52526

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PRT;
                                            11 AA.
ID
     Q52526
                 PRELIMINARY;
AC
     052526;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
DT
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
     Megaplasmid SYM nodulation node (Fragment).
DΕ
OS
     Rhizobium sp.
OG
     Plasmid SYM.
     Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
OC
     Rhizobiaceae; Rhizobium/Agrobacterium group; Rhizobium.
OC
     NCBI TaxID=391;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=41;
     Rostas K., Kondorosi E., Horvath B., Simoncsits A., Kondorosi A.;
RA
     "Conservation of extended promoter regions of nodulation genes in
RT
RT
     Rhizobium.";
     Proc. Natl. Acad. Sci. U.S.A. 83:1757-1761(1986).
RL
     EMBL; M13289; AAB86797.1; -.
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
DR
KW
     Plasmid.
     NON TER
                  11
                         11
FT
                11 AA; 1233 MW; C966816205BB1736 CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 7.4e+05;
  Best Local Similarity
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
             1; Conservative
  Matches
            2 E 2
Qу
            6 E 6
Db
RESULT 72
Q8KHL0
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     Q8KHL0
AC
     O8KHL0;
DT
     01-OCT-2002 (TrEMBLrel. 22, Created)
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
DE
     Hypothetical protein (Fragment).
OS
     Streptococcus gallolyticus.
     Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
OC
OC
     Streptococcus.
OX
     NCBI TaxID=53354;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=4-C11, and 4-G10; TRANSPOSON=Tn5382-like;
RC
     Dahl K.H., Sundsfjord A.;
RA
RT
     "vanB2 operons linked to Tn5382-like elements in Streptococcus strains
RT
     from veal calves.";
     Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AY035710; AAL07295.1; -.
     EMBL; AY035711; AAL07297.1; -.
DR
KW
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FT
     NON TER
                  11
                         11
SO
     SEOUENCE
                11 AA; 1329 MW; 93207414D1EEAB5E CRC64;
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Query Match
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  Best Local Similarity
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            1; Conservative 0; Mismatches
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  Matches
                                                    0; Indels
                                                                      0; Gaps
             9 M 9
Qу
              -1
Db
             1 M 1
RESULT 73
Q47602
                  PRELIMINARY;
                                     PRT;
                                              11 AA.
ID
     Q47602
AC
     Q47602;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update) 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DT
     REase protein (Fragment).
DE
     REASE.
GN
OS
     Escherichia coli.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
     NCBI TaxID=562;
OX
RN
     [1]
     SEOUENCE FROM N.A.
RP
     MEDLINE=91139577; PubMed=1995588;
RX
     Tao T., Bourne J.C., Blumenthal R.M.;
RA
     "A family of regulatory genes associated with type II restriction-
RT
RT
     modification systems.";
     J. Bacteriol. 173:1367-1375(1991).
RL
     EMBL; M63620; AAA24558.1; -.
DR
     NON TER
FT
                   11
                          1.1
SO
     SEQUENCE
                 11 AA; 1412 MW; 80ABB190C736DAAA CRC64;
  Query Match
                             9.1%; Score 1; DB 2; Length 11;
                            100.0%; Pred. No. 7.4e+05;
  Best Local Similarity
  Matches
             1; Conservative
                                 0; Mismatches
                                                       0; Indels 0; Gaps
                                                                                   0;
Qу
             9 M 9
Db
             1 M 1
RESULT 74
Q47606
ID
     Q47606
                  PRELIMINARY;
                                     PRT;
                                              11 AA.
AC
     Q47606;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update) 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DT
DΕ
     REase protein (Fragment).
     REASE.
GN
OS
     Escherichia coli.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
OC
     Enterobacteriaceae; Escherichia.
OX
     NCBI TaxID=562;
RN
     [1]
```

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SEOUENCE FROM N.A.
RP
    MEDLINE=91139577; PubMed=1995588;
RX
     Tao T., Bourne J.C., Blumenthal R.M.;
RA
RT
     "A family of regulatory genes associated with type II restriction-
     modification systems.";
RT
     J. Bacteriol. 173:1367-1375(1991).
RL
     EMBL; M63622; AAA24562.1; -.
DR
     NON TER
                         11
FT
                  11
                11 AA; 1370 MW;
     SEQUENCE
                                  68C1FF9959CB133B CRC64;
SQ
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 7.4e+05;
                                                                     Gaps
                                                                              0;
  Matches
                               0; Mismatches
                                                   0; Indels
             1; Conservative
            9 M 9
Qу
              - 1
            1 M 1
Db
RESULT 75
Q8L2T4
                                           11 AA.
                                   PRT;
                 PRELIMINARY;
ID
     Q8L2T4
AC
     Q8L2T4;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
     Histidinol phosphatase (Fragment).
DE
OS
     Neisseria meningitidis.
     Bacteria; Proteobacteria; Betaproteobacteria; Neisseriales;
OC
     Neisseriaceae; Neisseria.
OC
     NCBI_TaxID=487;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=126E;
RC
     MEDLINE=22051050; PubMed=12055303;
RX
     Zhu P., Klutch M.J., Bash M.C., Tsang R.S.W., Ng L.K., Tsai C.M.;
RA
     "Genetic Diversity of Three Lgt Loci for Biosynthesis of
RT
     Lipooligosaccharide (LOS) in Neisseria Species.";
RT
     Microbiology 148:1833-1844(2002).
RL
     EMBL; AF470685; AAM33538.1; -.
DR
     NON TER
                 11
FT
                         11
     SEQUENCE
                11 AA; 1273 MW; 01EC828D0AA72050 CRC64;
SQ
                           9.1%; Score 1; DB 2; Length 11;
  Ouery Match
                          100.0%; Pred. No. 7.4e+05;
  Best Local Similarity
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            9 M 9
Οv
              -1
            1 M 1
Db
Search completed: April 8, 2004, 15:46:09
Job time : 28.7692 secs
```

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

April 8, 2004, 15:30:07; Search time 5.15385 Seconds Run on:

(without alignments)

111.135 Million cell updates/sec

70

US-09-787-443A-19 Title:

Perfect score: 11

1 AEGGKKKKMRA 11 Sequence:

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

141681 seqs, 52070155 residues Searched:

Word size :

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database : SwissProt 42:*

> Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result		8					
No.	Score	Query Match	Length	DB	ID	Descr	iption
1	3	27.3	11	1	PKC1 ĆARMO	P8268	4 carausius m
2	2	18.2	11	1	ASL2 BACSE	P8314	7 bacteroides
3	2	18.2	11	1	BPP4 BOTIN	P3042	4 bothrops in
4	2	18.2	11	1	CSI5 BACSU	P8109	bacillus su
. 5	2	18.2	11	1	ES1 RAT	P5657	l rattus norv
6	2	18.2	11	1	FAR9 CALVO	P4186	4 calliphora
7	2	18.2	11	1	LADD ONCMY	P8101	3 oncorhynchu
8	2	18.2	11	1	LSK1 LEUMA	P0442	B leucophaea
9	2	18.2	11	1	LSKP PERAM	P3688	5 periplaneta
10	2	18.2	11	1	MHBI KLEPN	P8058	) klebsiella
11	2	18.2	11	1	MORN HUMAN	, P0116	3 homo sapien
12	2	18.2	11	1	NUHM CANFA	P4982	O canis famil
13	2	18.2	11	1	PQQC PSEFL	P5517	3 pseudomonas
14	2	18.2	11	1	PVK1 PERAM	P4183	7 periplaneta
15	2	18.2	11	1	Q2OA COMTE	P8046	4 comamonas t
16	2	18.2	11	1	RRPL CHAV	P1317	9 chandipura
17	2	18.2	11	1	RS30 ONCMY	P8332	8 oncorhynchu

18	1	9.1	11	1	ANGT_CRIGE	P09037	crinia geor
19	1	9.1	11	1.	ASL1 BACSE	P83146	bacteroides
20	1	9.1	11	1	BPP3 BOTIN	P30423	bothrops in
21	1	9.1	11	1	BPPB AGKHA	P01021	agkistrodon
22	1	9.1	11	1	BPP AGKHP		agkistrodon
23	1	9.1	11	1	BRK MEGFL		megascolia
					_		_
24	1	9.1	11	1	CA21_LITCI		litoria cit
25	1	9.1	11	1	CA22_LITCI		litoria cit
26	1	9.1	11	1	CA31_LITCI		litoria cit
27	1	9.1	11	1	CA32_LITCI	P82090	litoria cit
28	1	9.1	11	1	CA41 LITCI	P82091	litoria cit
29	1	9.1	11	1	CA42 LITCI	P82092	litoria cit
30	1	9.1	11	1	CEP1 ACHFU	P22790	achatina fu
31	1	9.1	11	1	CORZ PERAM	P11496	periplaneta
32	1	9.1	11	1	COXA CANFA		canis famil
33	1	9.1	11	1	CX5A CONAL		conus aulic
	1	9.1	11	1	CX5B CONAL		conus aulic
34							
35	1	9.1	11	1	CXL1_CONMR		conus marmo
36	1	9.1	11	1	EFG_CLOPA		clostridium
37	1	9.1	11	1	FAR6_PENMO		penaeus mon
38	1	9.1	11	1	HS70_PINPS		pinus pinas
39	1	9.1	11	1	LPW_THETH	P05624	thermus the
40	1	9.1	11	1	MLG THETS	P41989	theromyzon
41	1	9.1	11	1	NXSN PSETE	P59072	pseudonaja
42	1	9.1	11	1	OAIF SARBU		sarcophaga
43	1	9.1	11	1	RANC RANPI		rana pipien
44	1	9.1	11	1	RE41 LITRU		litoria rub
45	1	9.1	11	1	RR2 CONAM		conopholis
				1			proteus vul
46	. 1	9.1	11		T2P1_PROVU		
47	1	9.1	11	1	TIN1_HOPTI		hoplobatrac
48	1	9.1	11	1	TIN4_HOPTI		hoplobatrac
49	1	9.1	11	1	TKC2_CALVO		calliphora
50	1	9.1	11	1	$\mathtt{TKN1}_\mathtt{PSEGU}$		pseudophryn
51	1	9.1	11	1	TKN1_UPEIN	P82026	uperoleia i
52	1	9.1	11	1	TKN1_UPERU	P08612	uperoleia r
53	1	9.1	11	1	TKN2 PSEGU	P42987	pseudophryn
54	1	9.1	11	1	TKN2 UPERU	P08616	uperoleia r
55	1	9.1	11	1	TKN3 PSEGU		pseudophryn
56	1	9.1	11	1	TKN4 PSEGU		pseudophryn
57	1	9.1	11	1			pseudophryn
	1		11	1	_		gallus gall
58		9.1			TKNA_CHICK		
59	1	9.1	11	1	TKNA_GADMO		gadus morhu
60	1	9.1	11	1	TKNA_HORSE		equus cabal
61	1	9.1	11	1	TKNA_ONCMY		oncorhynchu
62	1	9.1	11	1	TKNA_RANCA		rana catesb
63	1	9.1	11	1	TKNA_RANRI		rana ridibu
64	1	9.1	11	1	TKNA_SCYCA	P41333	scyliorhinu
65	1	9.1	11	1	TKND RANCA	P22691	rana catesb
66	1	9.1	11	1	TKN ELEMO	P01293	eledone mos
67	$\overline{f 1}$	9.1	11	1	TKN PHYFU		physalaemus
68	1	9.1	11	1	UF05 MOUSE		mus musculu
69	1	9.1	11	1	ULAG HUMAN		homo sapien
70	1	9.1	11	1	UXB2 YEAST		saccharomyc
7 0	Т	J•⊥	т.т	T	OVDS TEWST	F 3 3 U 1 3	Saccitatomyc

```
RESULT 1
PKC1 CARMO
     PKC1 CARMO
                                    PRT;
                                            11 AA.
                    STANDARD;
AC
     P82684;
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
     Pyrokinin-1 (Cam-PK-1) (FXPRL-Amide).
DE
     Carausius morosus (Indian stick insect).
os
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Phasmatodea; Euphasmida; Phasmatoidea;
OC
OC
     Heteronemiidae; Carausius.
     NCBI TaxID=7022;
OX
RN
     [1]
     SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RP
     TISSUE=Corpora cardiaca;
RC
     Predel R., Kellner R., Gaede G.;
RA
     "Myotropic neuropeptides from the retrocerebral complex of the stick
RT
     insect, Carausius morosus (Phasmatodea: Lonchodidae).";
RT
     Eur. J. Entomol. 96:275-278(1999).
RL
     -!- FUNCTION: Mediates visceral muscle contractile activity (myotropic
CC
CC
         activity).
     -!- MASS SPECTROMETRY: MW=1235; METHOD=MALDI.
CC
     -!- SIMILARITY: Belongs to the pyrokinin family.
CC
     InterPro; IPR001484; Pyrokinin.
DR
     PROSITE; PS00539; PYROKININ; FALSE NEG.
DR
KW
     Neuropeptide; Amidation; Pyrokinin.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1236 MW;
                                  2BFA5225BB46C1A8 CRC64;
                          27.3%;
  Query Match
                                  Score 3; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.5e+03;
             3; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
            2 EGG 4
Qy
              -1.11
Db
            2 EGG 4
RESULT 2
ASL2 BACSE
                    STANDARD;
     ASL2 BACSE
                                    PRT;
                                            11 AA.
ΙD
     P83147;
AC
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DТ
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Acharan sulfate lyase 2 (EC 4.2.2.-) (Fragment).
DΕ
     Bacteroides stercoris.
OS
OC
     Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
     Bacteroidaceae; Bacteroides.
OC
     NCBI TaxID=46506;
OX
RN
     SEQUENCE, FUNCTION, ENZYME REGULATION, AND SUBUNIT.
RP
     STRAIN=HJ-15;
RC
RX
     MEDLINE=21223019; PubMed=11322884;
RA
     Kim B.-T., Hong S.-W., Kim W.-S., Kim Y.S., Kim D.-H.;
```

```
"Purification and characterization of acharan sulfate lyases, two
RT
RT
     novel heparinases, from Bacteroides stercoris HJ-15.";
RL
     Eur. J. Biochem. 268:2635-2641(2001).
     -!- FUNCTION: Degrades acharan sulfate and, to a lesser extent,
CC
CC
         heparin and heparan sulfate.
CC
     -!- ENZYME REGULATION: Inhibited by cupric ion, nitrogen and lead.
CC
         Activated by reducing agents, such as DL-dithiothreitol and 2-
CC
         mercaptoethanol.
CC
     -!- SUBUNIT: Monomer.
CC
     -!- PTM: The N-terminus is blocked.
     -!- MISCELLANEOUS: Has an isoelectric point of 8.6. Its optimum pH is
CC
         7.2 and optimum temperature 45 degrees Celsius.
CC
     Lyase; Heparin-binding.
KW
     NON TER
FT
                   1
                          1
     NON TER
FT
                  11
                         11
     SEQUENCE
                        1195 MW;
                                  D79D897C7AA451AD CRC64;
SQ
                11 AA;
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.4e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                              0;
                                                       Indels
                                                                  0; Gaps
             2; Conservative
            3 GG 4
Qу
              11
            8 GG 9
Db
RESULT 3
BPP4 BOTIN
     BPP4 BOTIN
                    STANDARD;
                                   PRT:
                                            11 AA.
ID
AC
     P30424;
     01-APR-1993 (Rel. 25, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Bradykinin-potentiating peptide S4,1,2 (Angiotensin-converting
DE
DE
     enzyme inhibitor).
     Bothrops insularis (Island jararaca) (Queimada jararaca).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OX
     NCBI TaxID=8723;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
RX
     MEDLINE=90351557; PubMed=2386615;
RA
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
     "Primary structure and biological activity of bradykinin potentiating
RT
RT
     peptides from Bothrops insularis snake venom.";
     J. Protein Chem. 9:221-227(1990).
RL
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
         bradykinin by inhibiting the kinases that inactivate it.
CC
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; D37196; D37196.
     Hypotensive agent; Pyrrolidone carboxylic acid.
KW
FT
     MOD RES
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                11 AA; 1143 MW; 20BBBF13C7741777 CRC64;
SQ
     SEQUENCE
```

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Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.4e+04;
             2; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0:
            3 GG 4
Qу
              \mathbf{H}
Db
            2 GG 3
RESULT 4
CSI5 BACSU
     CSI5 BACSU
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P81095;
DT
     15-JUL-1998 (Rel. 36, Created)
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Cold shock protein CSI5 (11 kDa cold shock protein) (Fragment).
DΕ
OS
     Bacillus subtilis.
     Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.
OC
     NCBI TaxID=1423;
OX
RN
     [1]
     SEQUENCE.
RP
     STRAIN=168 / JH642;
RC
     Graumann P.L., Schmid R., Marahiel M.A.;
RA
     Submitted (OCT-1997) to Swiss-Prot.
RL
RN
     CHARACTERIZATION.
RP
     STRAIN=168 / JH642;
RC
     MEDLINE=96345629; PubMed=8755892;
RX
     Graumann P., Schroeder K., Schmid R., Marahiel M.A.;
RA
RT
     "Cold shock stress-induced proteins in Bacillus subtilis.";
     J. Bacteriol. 178:4611-4619(1996).
RL
CC
     -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC
     -!- INDUCTION: In response to low temperature.
CC
     -!- CAUTION: Could not be found in the genome of B.subtilis 168.
FT
     NON TER
                  11
                         11
     SEQUENCE
SQ
                11 AA; 1360 MW; 15F6ECEE6322C330 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
                          100.0%; Pred. No. 1.4e+04;
  Best Local Similarity
  Matches
             2; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
            9 MR 10
Qу
              Db
            1 MR 2
RESULT 5
ES1 RAT
ID
     ES1 RAT
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P56571;
     15-DEC-1998 (Rel. 37, Created)
DT
DT
     15-DEC-1998 (Rel. 37, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DE
     ES1 protein, mitochondrial (Fragment).
OS
     Rattus norvegicus (Rat).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
```

```
OX
     NCBI TaxID=10116;
RN
     [1]
RP
     SEQUENCE.
     STRAIN=Wistar; TISSUE=Heart;
RC
     Li X.-P., Pleissner K.-P., Scheler C., Regitz-Zagrosek V., Salikov J.,
RA
     Jungblut P.R.;
RA
     Submitted (SEP-1998) to Swiss-Prot.
RL
     -!- SUBCELLULAR LOCATION: Mitochondrial (Potential).
CC
     -!- MISCELLANEOUS: By 2D-PAGE, the determined pI of this protein (spot
CC
         P2) is: 8.9, its MW is: 25 kDa.
CC
     -!- SIMILARITY: BELONGS TO THE ES1 FAMILY.
CC
KW
     Mitochondrion.
                  11
     NON TER
FT
                         11
                11 AA; 1142 MW; D862272D32C72DC2 CRC64;
SQ
     SEQUENCE
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.4e+04;
                                                                              0;
             2; Conservative 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
           10 RA 11
QУ
              \mathbf{I}
            1 RA 2
Db
RESULT 6
FAR9 CALVO
ID
     FAR9 CALVO
                    STANDARD;
                                   PRT:
                                           11 AA.
AC
     P41864;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     01-NOV-1995 (Rel. 32, Last annotation update)
DT
     CalliFMRFamide 9.
DE
     Calliphora vomitoria (Blue blowfly).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
     Calliphoridae; Calliphora.
OC
OX
     NCBI TaxID=27454;
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Thoracic ganglion;
RC
     MEDLINE=92196111; PubMed=1549595;
RX
     Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA
     Rehfeld J.F., Thorpe A.;
RA
     "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
RT
     neuropeptides (designated calliFMRFamides) from the blowfly
RT
     Calliphora vomitoria.";
RT
     Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
RL
     -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC
         family.
CC
     PIR; I41978; I41978.
DR
KW
     Neuropeptide; Amidation.
                                  AMIDATION.
FT
     MOD RES
                 11
                         11
     SEQUENCE
                11 AA; 1359 MW; 8160CE46CAA44321 CRC64;
SQ
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.4e+04;
```

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.

OC

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0; Indels
                                                                   0; Gaps
                                                                                0;
  Matches
             2; Conservative
                                  0: Mismatches
            9 MR 10
Qу
              \mathbf{I}
Db
            9 MR 10
RESULT 7
LADD ONCMY
     LADD ONCMY
                                    PRT;
                                            11 AA.
                    STANDARD;
ID
AC
     P81018;
     01-NOV-1997 (Rel. 35, Created)
DT
     01-NOV-1997 (Rel. 35, Last sequence update)
DT
     15-DEC-1998 (Rel. 37, Last annotation update)
DT
DE
     Ladderlectin (Fragment).
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OC
     NCBI TaxID=8022;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Blood;
     MEDLINE=97293418; PubMed=9149391;
RX
     Jensen L.E., Thiel S., Petersen T.E., Jensenuis J.C.;
RΑ
     "A rainbow trout lectin with multimeric structure.";
RT
     Comp. Biochem. Physiol. 116B:385-390(1997).
RL
CC
     -!- FUNCTION: Lectin that binds sepharose.
     -!- COFACTOR: Calcium is essential for sepharose binding.
CC
CC
     -!- SUBUNIT: Multimeric.
KW
     Lectin; Calcium.
FT
     NON TER
     SEQUENCE
                11 AA;
                        1163 MW;
                                   OB26227FF6D45404 CRC64;
SO
                           18.2%; Score 2; DB 1; Length 11;
  Query Match
                           100.0%; Pred. No. 1.4e+04;
  Best Local Similarity
             2; Conservative
                                  0; Mismatches
                                                     0;
                                                        Indels
                                                                    0; Gaps
                                                                                0;
  Matches
            1 AE 2
Qу
              11
Db
            2 AE 3
RESULT 8
LSK1 LEUMA
     LSK1 LEUMA
                     STANDARD;
                                    PRT;
                                            11 AA.
ID
     P04428;
AC
     13-AUG-1987 (Rel. 05, Created)
DT
     13-AUG-1987 (Rel. 05, Last sequence update)
DT
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
     Leucosulfakinin-I (LSK-I).
DE
     Leucophaea maderae (Madeira cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
OC
     Blaberidae; Leucophaea.
OC
OX
     NCBI TaxID=6988;
RN
     [1]
```

```
SEQUENCE.
RP
RX
     MEDLINE=86315858; PubMed=3749893;
     Nachman R.J., Holman G.M., Haddon W.F., Ling N.;
RA
     "Leucosulfakinin, a sulfated insect neuropeptide with homology to
RT
RT
     gastrin and cholecystokinin.";
RL
     Science 234:71-73(1986).
     -!- FUNCTION: Change the frequency and amplitude of contractions of
CC
CC
         the hingut. Inhibits muscle contraction of hindgut.
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     PIR; A01622; GMROL.
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; 1.
DR
KW
     Hormone; Amidation; Sulfation.
                          6
                                  SULFATION.
     MOD RES
                   6
FT
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA;
                       1459 MW;
                                 7E4E0680E86B5AAB CRC64;
SO
                                  Score 2; DB 1; Length 11;
                          18.2%;
  Query Match
                          100.0%; Pred. No. 1.4e+04;
  Best Local Similarity
                                                                               0;
             2: Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                   0; Gaps
  Matches
            9 MR 10
Qу
            9 MR 10
Db
RESULT 9
LSKP PERAM
                                    PRT;
                                            11 AA.
ID
     LSKP PERAM
                    STANDARD:
AC
     P36885;
DT
     01-JUN-1994 (Rel. 29, Created)
     01-JUN-1994 (Rel. 29, Last sequence update)
DT
     01-FEB-1996 (Rel. 33, Last annotation update)
DT
     Perisulfakinin (Pea-SK-I).
DE
     Periplaneta americana (American cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
OC
     Blattidae; Periplaneta.
     NCBI TaxID=6978;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Corpora cardiaca;
RX
     MEDLINE=90137190; PubMed=2615921;
RA
     Veenstra J.A.;
RT
     "Isolation and structure of two gastrin/CCK-like neuropeptides from
     the American cockroach homologous to the leucosulfakinins.";
RT
     Neuropeptides 14:145-149(1989).
ŔĿ
     -!- FUNCTION: Stimulates hindgut contractions.
CC
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     PIR; A60656; A60656.
     InterPro; IPR001651; Gastrin.
DR
DR
     PROSITE; PS00259; GASTRIN; 1.
     Hormone; Amidation; Sulfation.
KW
                           6
                                   SULFATION.
FT
     MOD RES
                   6
\mathbf{FT}
     MOD RES
                         11
                                   AMIDATION.
                  11
SQ
     SEQUENCE
                11 AA;
                        1445 MW; 8B4E0680E86B5AAA CRC64;
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18.2%; Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
                                                                  0: Gaps
                                                                               0:
                                 0; Mismatches
                                                    0; Indels
  Matches
             2; Conservative
Qу
            9 MR 10
              \perp
Db
            9 MR 10
RESULT 10
MHBI KLEPN
     MHBI KLEPN
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
AC
     P80580;
     01-OCT-1996 (Rel. 34, Created)
DT
     01-OCT-1996 (Rel. 34, Last sequence update)
DT
     01-NOV-1997 (Rel. 35, Last annotation update)
DT
     Maleylpyruvate isomerase (EC 5.2.1.4) (Fragment).
DΕ
GN
     MHBI.
     Klebsiella pneumoniae.
OS
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
OC
     Enterobacteriaceae; Klebsiella.
OX
     NCBI TaxID=573;
RN
     [1]
RP
     SEQUENCE.
     MEDLINE=96349117; PubMed=8760924;
RX
     Robson N.D., Parrott S., Cooper R.A.;
RA
     "In vitro formation of a catabolic plasmid carrying Klebsiella
RT
     pneumoniae DNA that allows growth of Escherichia coli K-12 on 3-
RT
     hydroxybenzoate.";
RT
RL
     Microbiology 142:2115-2120(1996).
     -!- CATALYTIC ACTIVITY: 3-maleylpyruvate = 3-fumarylpyruvate.
CC
KW
     Isomerase.
FT
     NON TER
                  11
                         11
SO
     SEQUENCE
                11 AA; 1387 MW;
                                  1EE0E2DD49C9D5AB CRC64;
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                  0; Gaps
                                                                               0;
           10 RA 11
Qу
              11
Db
           10 RA 11
RESULT 11
MORN HUMAN
     MORN HUMAN
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
     P01163;
AC
DT
     21-JUL-1986 (Rel. 01, Created)
DT
     21-JUL-1986 (Rel. 01, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
     Morphogenetic neuropeptide (Head activator) (HA).
DE
OS
     Homo sapiens (Human),
OS
     Rattus norvegicus (Rat),
OS
     Bos taurus (Bovine),
OS
     Anthopleura elegantissima (Sea anemone), and
OS
     Hydra attenuata (Hydra) (Hydra vulgaris).
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606, 10116, 9913, 6110, 6087;
OX
RN
RP
     SEQUENCE.
RC
     SPECIES=Human, Rat, and Bovine;
     MEDLINE=82035850; PubMed=7290191;
RX
     Bodenmuller H., Schaller H.C.;
RA
     "Conserved amino acid sequence of a neuropeptide, the head activator,
RT
     from coelenterates to humans.";
RT
     Nature 293:579-580(1981).
RL
RN
     [2]
RP
     SEOUENCE.
     SPECIES=A.elegantissima, and H.attenuata;
RC
     Schaller H.C., Bodenmuller H.;
RA
     "Isolation and amino acid sequence of a morphogenetic peptide from
RT
RT
     hydra.";
     Proc. Natl. Acad. Sci. U.S.A. 78:7000-7004(1981).
RL
RN
     SYNTHESIS.
RP
     MEDLINE=82050803; PubMed=7297679;
RX
     Birr C., Zachmann B., Bodenmuller H., Schaller H.C.;
RA
     "Synthesis of a new neuropeptide, the head activator from hydra.";
RT
     FEBS Lett. 131:317-321(1981).
RL
RN
     [4]
     FUNCTION.
RP
     MEDLINE=90059923; PubMed=2583101;
RX
     Schaller H.C., Druffel-Augustin S., Dubel S.;
RA
     "Head activator acts as an autocrine growth factor for NH15-CA2 cells
RT
RT
     in the G2/mitosis transition.";
     EMBO J. 8:3311-3318(1989).
RL
     -!- FUNCTION: HA acts as an autocrine growth factor for neural cells
CC
CC
         in the G2/mitosis transition.
CC
     -!- CAUTION: This peptide was first isolated from nerve cells of hydra
CC
         and was called head activator by the authors, because it induced
         head-specific growth and differentiation in this animal. It has
CC
CC
         been found in mammalian intestine and hypothalamus.
DR
     PIR; A01427; YHRT.
DR
     PIR; A93900; YHXAÉ.
     PIR; B01427; YHHU.
DR
     PIR; B93900; YHJFHY.
DR
     PIR; C01427; YHBO.
DR
DR
     GK; P01163; -.
     Growth factor; Cell cycle; Mitosis; Pyrrolidone carboxylic acid.
KW
FT
     MOD RES
                   1
                          1
                                   PYRROLIDONE CARBOXYLIC ACID.
SQ
     SEQUENCE
                11 AA; 1142 MW; 37927417C325B878 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
                          100.0%; Pred. No. 1.4e+04;
  Best Local Similarity
                                                                               0;
  Matches
             2: Conservative
                                  0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            3 GG 4
Qу
              11
Db
            4 GG 5
```

```
NUHM CANFA
     NUHM CANFA
                                    PRT:
TD
                    STANDARD;
                                            11 AA.
     P49820;
AC
     01-OCT-1996 (Rel. 34, Created)
DT
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     NADH-ubiquinone oxidoreductase 24 kDa subunit (EC 1.6.5.3)
DE
     (EC 1.6.99.3) (Fragment).
     NDUFV2.
GN
OS
     Canis familiaris (Dog).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OC
OX
     NCBI TaxID=9615;
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Heart;
RC
     MEDLINE=98163340; PubMed=9504812;
RX
     Dunn M.J., Corbett J.M., Wheeler C.H.;
RA
     "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT
     dog heart proteins.";
RT
     Electrophoresis 18:2795-2802(1997).
RL
     -!- FUNCTION: TRANSFER OF ELECTRONS FROM NADH TO THE RESPIRATORY
CC
         CHAIN. THE IMMEDIATE ELECTRON ACCEPTOR FOR THE ENZYME IS BELIEVED
CC
         TO BE UBIQUINONE. COMPONENT OF THE FLAVOPROTEIN-SULFUR (FP)
CC
CC
         FRAGMENT OF THE ENZYME.
     -!- CATALYTIC ACTIVITY: NADH + ubiquinone = NAD(+) + ubiquinol.
CC
     -!- CATALYTIC ACTIVITY: NADH + acceptor = NAD(+) + reduced acceptor.
CC
CC
     -!- COFACTOR: Binds 1 2Fe-2S cluster (Potential).
     -!- SUBUNIT: Mammalian complex I is composed of 45 different subunits.
CC
CC
     -!- SUBCELLULAR LOCATION: Matrix and cytoplasmic side of the
CC
         mitochondrial inner membrane.
     -!- SIMILARITY: Belongs to the complex I 24 kDa subunit family.
CC
DR
     HSC-2DPAGE; P49820; DOG.
     InterPro; IPR002023; Cmplx1 24kDa.
DR
     PROSITE; PS01099; COMPLEX1 24K; PARTIAL.
DR
     Oxidoreductase; NAD; Ubiquinone; Mitochondrion; Metal-binding;
KW
KW
     Iron-sulfur; Iron; 2Fe-2S.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA;
                        1099 MW; 267F5369C9C72DD8 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+04;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                   0; Gaps
                                                                               0;
            3 GG 4
Qv
              11
            3 GG 4
Db
RESULT 13
PQQC PSEFL
     PQQC PSEFL
                                    PRT;
                                            11 AA.
                    STANDARD;
     P55173;
AC
DТ
     01-OCT-1996 (Rel. 34, Created)
DT
     01-OCT-1996 (Rel. 34, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Coenzyme PQQ synthesis protein C (Pyrroloquinoline quinone
```

```
biosynthesis protein C) (Fragment).
DE
GN
    POOC.
OS
    Pseudomonas fluorescens.
    Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC
OC
    Pseudomonadaceae; Pseudomonas.
OX
    NCBI TaxID=294;
RN
     [1]
    SEQUENCE FROM N.A.
RP
    STRAIN=CHA0;
RC
RX
    MEDLINE=96064397; PubMed=8526497;
    Schnider U., Keel C., Defago G., Haas D.;
RA
     "Tn5-directed cloning of pqq genes from Pseudomonas fluorescens CHAO:
RT
    mutational inactivation of the genes results in overproduction of the
RT
RT
    antibiotic pyoluteorin.";
    Appl. Environ. Microbiol. 61:3856-3864(1995).
RL
    -!- PATHWAY: Pyrroloquinoline quinone (PQQ) biosynthesis.
CC
CC
    -!- SIMILARITY: Belongs to the pqqC family.
    _____
CC
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CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
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    the European Bioinformatics Institute. There are no restrictions on its
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    ______
CC
    EMBL; X87299; CAA60734.1; -.
DR
    PIR; S58244; S58244.
DR
DR
    HAMAP; MF 00654; -; 1.
KW
    PQQ biosynthesis.
FT
    NON TER
                 11
                       11
    SEQUENCE
               11 AA; 1182 MW; 89DF46E4C5B73771 CRC64;
SQ
 Query Match
                        18.2%; Score 2; DB 1; Length 11;
                        100.0%; Pred. No. 1.4e+04;
 Best Local Similarity
 Matches
           2; Conservative 0; Mismatches 0; Indels
                                                             0; Gaps 0;
Qу
           1 AE 2
             II
           9 AE 10
Db
RESULT 14
PVK1 PERAM
ID
    PVK1 PERAM
                   STANDARD;
                                 PRT;
                                        11 AA.
AC
    P41837;
    01-NOV-1995 (Rel. 32, Created)
DT
    01-NOV-1995 (Rel. 32, Last sequence update)
DT
    16-OCT-2001 (Rel. 40, Last annotation update)
DT
DE
    Periviscerokinin-1 (Pea-PVK-1).
    Periplaneta americana (American cockroach).
OS
    Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
    Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
    Blattidae; Periplaneta.
OC
OX
    NCBI TaxID=6978;
RN
     [1]
    SEQUENCE, AND SYNTHESIS.
RP
```

```
RC
     TISSUE=Abdominal perisympathetic organs;
     MEDLINE=95232021; PubMed=7716075;
RX
     Predel R., Linde D., Rapus J., Vettermann S., Penzlin H.;
RA
     "Periviscerokinin (Pea-PVK): a novel myotropic neuropeptide from the
RT
     perisympathetic organs of the American cockroach.";
RT
RL
     Peptides 16:61-66(1995).
     -!- FUNCTION: MYOACTIVE PEPTIDE; HAS EXCITORY ACTIONS ON THE
CC
CC
         HYPERNEURAL MUSCLE.
KW
     Neuropeptide; Amidation.
FT
     MOD RES
                                  AMIDATION.
                  11
                         11
                                  39DB5419D7605728 CRC64;
     SEQUENCE
                11 AA; 1114 MW;
SQ
  Query Match
                          18.2%;
                                  Score 2; DB 1; Length 11;
                          100.0%; Pred. No. 1.4e+04;
  Best Local Similarity
                                                                              0;
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
  Matches
             2; Conservative
            9 MR 10
QУ
              11
            9 MR 10
Db
RESULT 15
Q2OA COMTE
     Q2OA COMTE
                    STANDARD;
                                   PRT;
                                           11 AA.
ID
     P80464;
AC
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
     Quinoline 2-oxidoreductase, alpha chain (EC 1.3.99.17) (Fragment).
DE
OS
     Comamonas testosteroni (Pseudomonas testosteroni).
     Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
OC
OC
     Comamonadaceae; Comamonas.
OX
     NCBI TaxID=285;
RN
     [1]
     SEQUENCE.
RP
RC
     STRAIN=63;
     MEDLINE=96035889; PubMed=7556204;
RX
     Schach S., Tshisuaka B., Fetzner S., Lingens F.;
RA
     "Quinoline 2-oxidoreductase and 2-oxo-1,2-dihydroquinoline 5,6-
RT
     dioxygenase from Comamonas testosteroni 63. The first two enzymes in
RT
RT
     quinoline and 3-methylquinoline degradation.";
RL
     Eur. J. Biochem. 232:536-544(1995).
CC
     -!- FUNCTION: Converts (3-methyl-)-quinoline to (3-methyl-)2-oxo-
CC
         1,2-dihydroquinoline.
CC
     -!- CATALYTIC ACTIVITY: Quinoline + acceptor + H(2)O = isoquinolin-
CC
         1(2H)-one + reduced acceptor.
CC
     -!- COFACTOR: FAD, molybdenum and iron-sulfur.
     -!- PATHWAY: Degradation of quinoline and (3-methyl-)quinoline; first
CC
CC
     -!- SUBUNIT: Heterohexamer of two alpha chains, two beta chains, and
CC
CC
         two gamma chains (Probable).
     PIR; S66606; S66606.
DR
     Oxidoreductase; Flavoprotein; FAD; Molybdenum.
KW
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1213 MW; 869094322B1DC2CA CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
```

```
Best Local Similarity 100.0%; Pred. No. 1.4e+04;
                                                                         0;
 Matches 2; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps
           1 AE 2
Qу
            6 AE 7
Db
RESULT 16
RRPL CHAV
    RRPL CHAV
                  STANDARD;
                                 PRT;
                                       11 AA.
ID
    P13179;
AC
    01-JAN-1990 (Rel. 13, Created)
DT
    01-JAN-1990 (Rel. 13, Last sequence update)
DT
    28-FEB-2003 (Rel. 41, Last annotation update)
DT
    RNA polymerase beta subunit (EC 2.7.7.48) (Large structural protein)
DE
    (L protein) (Fragment).
DE
GN
    L.
    Chandipura virus (strain I653514).
OS
    Viruses; ssRNA negative-strand viruses; Mononegavirales;
OC
    Rhabdoviridae; Vesiculovirus.
OC
    NCBI TaxID=11273;
OX
RN
    [1]
RP
    SEQUENCE FROM N.A.
    MEDLINE=89299473; PubMed=2741347;
RX
    Masters P.S., Bhella R.S., Butcher M., Patel B., Ghosh H.P.,
RA
RA
    Banerjee A.K.;
    "Structure and expression of the glycoprotein gene of Chandipura
RT
RT
    virus.";
    Virology 171:285-290(1989).
RL
    -!- FUNCTION: THIS PROTEIN IS PROBABLY A COMPONENT OF THE ACTIVE
CC
        POLYMERASE. IT MAY FUNCTION IN RNA SYNTHESIS, CAPPING, AS WELL AS
CC
        METHYLATION OF CAPS, AND POLY(A) SYNTHESIS.
CC
    -!- CATALYTIC ACTIVITY: N nucleoside triphosphate = N diphosphate +
CC
CC
        {RNA}(N).
    -!- SUBUNIT: THOUGHT TO FORM A TRANSCRIPTION COMPLEX WITH THE
CC
        NUCLEOCAPSID (N) PROTEIN.
CC
    -!- SIMILARITY: WITH THE L PROTEIN OF OTHER RHABDOVIRUSES AND
CC
        PARAMYXOVIRUSES.
CC
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    between the Swiss Institute of Bioinformatics and the EMBL outstation -
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    the European Bioinformatics Institute. There are no restrictions on its
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    or send an email to license@isb-sib.ch).
CC
    _____
CC
    EMBL; J04350; AAA42917.1; -.
DR
    Transferase; RNA-directed RNA polymerase.
KW
                11
FT
                       11
     SEQUENCE 11 AA; 1189 MW; 0335D6E3AAB2D764 CRC64;
SO
                        18.2%; Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.4e+04;
          2; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps 0;
```

```
1 AE 2
Qу
              11
           10 AE 11
Db.
RESULT 17
RS30 ONCMY
     RS30 ONCMY
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
    P83328;
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
     40S ribosomal protein S30 (Fragment).
DΕ
     FAU.
GN
OS
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopteryqii; Salmoniformes; Salmonidae; Oncorhynchus.
OC
OX
     NCBI TaxID=8022;
RN
     [1]
     SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin mucus;
RC
    MEDLINE=22142142; PubMed=12147245;
RX
     Fernandes J.M.O., Smith V.J.;
RA
     "A novel antimicrobial function for a ribosomal peptide from rainbow
RT
     trout skin.";
RT
     Biochem. Biophys. Res. Commun. 296:167-171(2002).
RL
CC
     -!- FUNCTION: Has antibacterial activity against Gram-positive
CC
         bacteria.
CC
     -!- MASS SPECTROMETRY: MW=6676.6; METHOD=MALDI.
     -!- SIMILARITY: Belongs to the S30E family of ribosomal proteins.
CC
KW
     Ribosomal protein; Antibiotic.
     NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA; 1123 MW; 2312AB630DD735B8 CRC64;
SQ
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.4e+04;
  Best Local Similarity
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
            4 GK 5
Qу
              | | |
Db
           10 GK 11
RESULT 18
ANGT CRIGE
     ANGT CRIGE
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
     P09037:
AC
     01-NOV-1988 (Rel. 09, Created)
DT
     01-NOV-1988 (Rel. 09, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Crinia-angiotensin II.
OS
     Crinia georgiana (Quacking frog).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Crinia.
```

NCBI TaxID=8374;

OX

```
RN
     [1]
RP
     SEOUENCE.
RC
     TISSUE=Skin secretion;
     MEDLINE=80024575; PubMed=488254;
RX
RA
     Erspamer V., Melchiorri P., Nakajima T., Yasuhara T., Endean R.;
     "Amino acid composition and sequence of crinia-angiotensin, an
RT
     angiotensin II-like endecapeptide from the skin of the Australian
RT
RT
     frog Crinia georgiana.";
     Experientia 35:1132-1133(1979).
RL
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
DR
     PIR; S07207; S07207.
KW
     Vasoconstrictor.
                11 AA; 1271 MW; 8A0921F7DB50440A CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 1; Length 11;
 Query Match
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                               0;
            1; Conservative
                                                    0; Indels
                                                                  0; Gaps
            1 A 1
Qу
            1 A 1
Db
RESULT 19
ASL1 BACSE
                                            11 AA.
ID
     ASL1 BACSE
                    STANDARD;
                                   PRT;
AC
     P83146;
     28-FEB-2003 (Rel. 41, Created)
DΤ
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Acharan sulfate lyase 1 (EC 4.2.2.-) (Fragment).
DE
     Bacteroides stercoris.
OS
OC
     Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
     Bacteroidaceae; Bacteroides.
OC
     NCBI TaxID=46506;
OX
RN
     [1]
RP
     SEQUENCE, FUNCTION, ENZYME REGULATION, AND SUBUNIT.
     STRAIN=HJ-15;
RC
     MEDLINE=21223019; PubMed=11322884;
RX
     Kim B.-T., Hong S.-W., Kim W.-S., Kim Y.S., Kim D.-H.;
RA
RT
     "Purification and characterization of acharan sulfate lyases, two
RT
     novel heparinases, from Bacteroides stercoris HJ-15.";
     Eur. J. Biochem. 268:2635-2641(2001).
RL
CC
     -!- FUNCTION: Degrades acharan sulfate and, to a lesser extent,
CC
         heparin and heparan sulfate.
CC
     -!- ENZYME REGULATION: Inhibited by cupric ion, nitrogen and cobalt.
         Activated by reducing agents, such as DL-dithiothreitol and 2-
CC
CC
         mercaptoethanol.
CC
     -!- SUBUNIT: Monomer.
CC
     -!- PTM: The N-terminus is blocked.
     -!- MISCELLANEOUS: Has an isoelectric point of 8.6. Its optimum pH is
CC
CC
         7.2 and optimum temperature 45 degrees Celsius.
KW
     Lyase; Heparin-binding.
FT
     NON TER
                   1
                          1
FT
     NON TER
                  11
                         11
SO
     SEQUENCE
                11 AA;
                        1395 MW; 01B2DAA241E865AB CRC64;
```

```
9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
  Matches
             1; Conservative
                              0; Mismatches
                                                                              0:
                                                    0; Indels
                                                                  0; Gaps
            3 G 3
Qy
Db
            6 G 6
RESULT 20
BPP3 BOTIN
     BPP3 BOTIN
ID
                    STANDARD;
                                    PRT;
                                           11 AA.
     P30423;
AC
     01-APR-1993 (Rel. 25, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Bradykinin-potentiating peptide S4,3,2 (10C) (Angiotensin-converting
DΕ
DΕ
     enzyme inhibitor).
OS
     Bothrops insularis (Island jararaca) (Queimada jararaca).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OX
     NCBI TaxID=8723;
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Venom;
RC
     MEDLINE=90351557; PubMed=2386615;
RX
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
RA
     "Primary structure and biological activity of bradykinin potentiating
RT
     peptides from Bothrops insularis snake venom.";
RT
     J. Protein Chem. 9:221-227(1990).
RL
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; C37196; C37196.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
FT
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
SQ
     SEQUENCE
                11 AA; 1199 MW;
                                  20B25813C7741777 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%;
                                   Pred. No. 9.4e+04;
  Matches
             1;
                Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0;
                                                                     Gaps
                                                                              0;
Qу
            3 G 3
            3 G 3
Dh
RESULT 21
BPPB AGKHA
ID
     BPPB AGKHA
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P01021;
DT
     21-JUL-1986 (Rel. 01, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
```

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DΕ
     Bradykinin-potentiating peptide B (Angiotensin-converting
DE
     enzyme inhibitor).
OS
     Agkistrodon halys blomhoffi (Mamushi) (Gloydius blomhoffii).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Gloydius.
OX
     NCBI TaxID=242054;
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Venom;
RC
     Kato H., Suzuki T.;
RA
     "Amino acid sequence of bradykinin-potentiating peptide isolated from
RT
     the venom of Agkistrodon halys blomhoffii.";
RT
     Proc. Jpn. Acad., B, Phys. Biol. Sci. 46:176-181(1970).
RL
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
         bradykinin by inhibiting the kinases that inactivate it.
CC
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; A01254; XASNBA.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
     SEQUENCE
                       1199 MW; 295CBF0627741777 CRC64;
SQ
                11 AA;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
             1; Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0;
                                                                      Gaps
                                                                               0:
            3 G 3
Qу
Db
            2 G 2
RESULT 22
BPP AGKHP
ΙD
     BPP AGKHP
                    STANDARD:
                                   PRT:
                                            11 AA.
     P04562;
AC
DT
     13-AUG-1987 (Rel. 05, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DE
     Bradykinin-potentiating peptide (Angiotensin-converting
DE
     enzyme inhibitor).
OS
    Agkistrodon halys pallas (Chinese water mocassin) (Gloydius halys
OS
     pallas).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
OC
     Viperidae; Crotalinae; Gloydius.
OX
    NCBI TaxID=8714;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
RX
    MEDLINE=86177022; PubMed=3008123;
RA
     Chi C.-W., Wang S.-Z., Xu L.-G., Wang M.-Y., Lo S.-S., Huang W.-D.;
     "Structure-function studies on the bradykinin potentiating peptide
RT
RT
     from Chinese snake venom (Agkistrodon halys pallas).";
     Peptides 6 Suppl. 3:339-342(1985).
RL
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
```

```
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
     PIR; JC0002; XAVIBH.
DR
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                         1
     SEOUENCE
                11 AA; 1112 MW; 30BABF1277686777 CRC64;
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
  Matches
             1; Conservative 0; Mismatches
                                                    0; Indels
                                                                              0;
                                                                  0; Gaps
            3 G 3
Qу
Db
            2 G 2
RESULT 23
BRK MEGFL
     BRK MEGFL
ID
                    STANDARD;
                                   PRT;
                                            11 AA.
     P12797;
AC
DT
     01-OCT-1989 (Rel. 12, Created)
     01-OCT-1989 (Rel. 12, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Megascoliakinin ([Thr6]bradykinin-Lys-Ala) [Contains: Bradykinin-like
DE
DE
     peptide ([Thr6]bradykinin)].
     Megascolia flavifrons (Garden dagger wasp) (Solitary wasp).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata; Vespoidea;
OC
OC
     Scoliidae; Megascolia.
     NCBI TaxID=7437;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Venom;
RX
     MEDLINE=87293024; PubMed=3617088;
RA
     Yasuhara T., Mantel P., Nakajima T., Piek T.;
RT
     "Two kinins isolated from an extract of the venom reservoirs of the
RT
     solitary wasp Megascolia flavifrons.";
RL
     Toxicon 25:527-535(1987).
RN
     [2]
     SEQUENCE.
RP
RC
     TISSUE=Venom;
RA
     Nakajima T., Piek T., Yashuara T., Mantel P.;
     "Two kinins isolated from the venom of Megascolia flavifrons.";
RT
RL
     Toxicon 26:34-34(1988).
CC
     -!- FUNCTION: Both proteins have bradykinin-like, although lower
CC
         activities (e.g. smooth muscle contraction).
     -!- SUBCELLULAR LOCATION: Secreted; wasp venom reservoirs.
CC
CC
     -!- SIMILARITY: Belongs to the bradykinin family.
DR
     PIR; B26744; B26744.
DR
     GO; GO: 0005615; C:extracellular space; IDA.
     GO; GO:0045776; P:negative regulation of blood pressure; ISS.
DR
DR
     GO; GO:0045987; P:positive regulation of smooth muscle contra. . .; TAS.
KW
     Bradykinin; Vasodilator.
FT
     PEPTIDE
                   1
                         11
                                  MEGASCOLIAKININ.
FT
     PEPTIDE
                   1
                          9
                                  BRADYKININ-LIKE PEPTIDE.
SQ
     SEQUENCE
                11 AA; 1273 MW; 33867393D771A9C8 CRC64;
```

```
9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
             1: Conservative
                                 0: Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
           10 R 10
Qу
            1 R 1
Db
RESULT 24
CA21 LITCI
     CA21 LITCI
                    STANDARD;
                                   PRT;
                                           11 AA.
ID
AC
     P82087;
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Caerulein 2.1/2.1Y4.
DE
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=20057701; PubMed=10589099;
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RT
     "Caerulein-like peptides from the skin glands of the Australian blue
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
RT
     using electrospray mass spectrometry.";
RL
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 2.1Y4 differs from isoform 2.1 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1372; METHOD=Electrospray.
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                                  PYRROLIDONE CARBOXYLIC ACID.
                          1
    MOD RES
FT
                   4
                          4
                                  SULFATION.
FT
     MOD RES
                         11
                  11
                                  AMIDATION.
     SEQUENCE 11 AA; 1312 MW; 10DAB7C4EDD861BB CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.4e+04;
                                 0; Mismatches
  Matches
             1; Conservative
                                                   0; Indels
                                                                      Gaps
                                                                              0;
            3 G 3
Qу
```

6 G 6

Db

```
CA22 LITCI
     CA22 LITCI
                                    PRT:
ID
                    STANDARD;
                                            11 AA.
     P82088;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Caerulein 2.2/2.2Y4.
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OC
OX
     NCBI TaxID=94770;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
     TISSUE=Skin secretion;
RC
RX
     MEDLINE=20057701; PubMed=10589099;
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
    montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
     -!- PTM: Isoform 2.2Y4 differs from isoform 2.2 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1388; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     InterPro; IPR001651; Gastrin.
DR
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
KW
     Pyrrolidone carboxylic acid.
\Gamma T
    MOD RES
                   1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
    MOD RES
                   4
                          4
                                  SULFATION.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1328 MW;
                                  10DAB894EDD861BB CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
             1; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
            3 G 3
Qу
              1
            6 G 6
Db
RESULT 26
CA31 LITCI
     CA31 LITCI
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
AC
     P82089;
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Caerulein 3.1/3.1Y4.
DE
OS
     Litoria citropa (Australian blue mountains tree frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
```

```
Pelodryadinae; Litoria.
OC
OX
     NCBI TaxID=94770;
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Skin secretion;
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
RT
     "Caerulein-like peptides from the skin glands of the Australian blue
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
RT
     using electrospray mass spectrometry.";
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
     -!- PTM: Isoform 3.1Y4 differs from isoform 3.1 in not being
CC
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1407; METHOD=Electrospray.
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
KW
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
FT
                   4
                          4
                                  SULFATION.
     MOD RES
                  11
                         11
                                  AMIDATION.
FT
                                  10DAB7D67861A86B CRC64;
     SEQUENCE
                11 AA; 1347 MW;
SO
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                     Gaps
                                                                               0;
            3 G 3
Qу
              1
Db
            5 G 5
RESULT 27
CA32 LITCI
ΙD
     CA32 LITCI
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P82090;
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Caerulein 3.2/3.2Y4.
OS
     Litoria citropa (Australian blue mountains tree frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=20057701; PubMed=10589099;
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RT
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RТ
     using electrospray mass spectrometry.";
```

```
RL
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 3.2Y4 differs from isoform 3.2 in not being
CC
CC
     -!- MASS SPECTROMETRY: MW=1423; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
KW
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                                   PYRROLIDONE CARBOXYLIC ACID.
                   1
     MOD RES
                   4
FT
                          4
                                   SULFATION.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1363 MW; 10DAB8867861A86B CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0;
                                                      Indels
                                                                  0; Gaps
                                                                              0;
            3 G 3
Qy
Db
            5 G 5
RESULT 28
CA41 LITCI
ID
     CA41 LITCI
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P82091;
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Caerulein 4.1/4.1Y4.
OS
     Litoria citropa (Australian blue mountains tree frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=20057701; PubMed=10589099;
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RL
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
     -!- PTM: Isoform 4.1Y4 differs from isoform 4.1 in not being
CC
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1388; METHOD=Electrospray.
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
```

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Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
                   4
                          4
                                  SULFATION.
FT
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEOUENCE
                                  10DAB7C4F5B861BB CRC64;
SO
                11 AA;
                        1328 MW;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
             1; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            3 G 3
Qу
              1
            6 G 6
Db
RESULT 29
CA42 LITCI
                                   PRT;
                                           11 AA.
     CA42 LITCI
                    STANDARD;
ID
AC
     P82092;
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DΤ
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Caerulein 4.2/4.2Y4.
DE
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OC
OX
     NCBI TaxID=94770;
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=20057701; PubMed=10589099;
RA
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RT
     "Caerulein-like peptides from the skin glands of the Australian blue
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
RT
     using electrospray mass spectrometry.";
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
     -!- PTM: Isoform 4.2Y4 differs from isoform 4.2 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1404; METHOD=Electrospray.
CC
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     InterPro; IPR001651; Gastrin.
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   4
                          4
                                  SULFATION.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SO
     SEQUENCE
                11 AA; 1344 MW; 10DAB894F5B861BB CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
  Matches
             1; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
```

```
3 G 3
Qу
Db
            6 G 6
RESULT 30
CEP1 ACHFU
     CEP1 ACHFU
                    STANDARD;
                                    PRT;
                                            11 AA.
ΙD
     P22790;
AC
     01-AUG-1991 (Rel. 19, Created)
DT
     01-AUG-1991 (Rel. 19, Last sequence update)
DT
     01-DEC-1992 (Rel. 24, Last annotation update)
DT
     Cardio-excitatory peptide-1 (ACEP-1).
DE
     Achatina fulica (Giant African snail).
OS
     Eukaryota; Metazoa; Mollusca; Gastropoda; Pulmonata; Stylommatophora;
OC
     Sigmurethra; Achatinoidea; Achatinidae; Achatina.
OC
     NCBI TaxID=6530;
OX
RN
     \lceil 1 \rceil
     SEQUENCE.
RP
     STRAIN=Ferussac; TISSUE=Heart atrium;
RC
     MEDLINE=90211261; PubMed=2322251;
RX
     Fujimoto K., Ohta N., Yoshida M., Kubota I., Muneoka Y., Kobayashi M.;
RA
     "A novel cardio-excitatory peptide isolated from the atria of the
RT
     African giant snail, Achatina fulica.";
RT
     Biochem. Biophys. Res. Commun. 167:777-783(1990).
RL
     -!- FUNCTION: Potentiates the beat of the ventricle, and has also
CC
         excitatory actions on the penis retractor muscle, the buccal
CC
         muscle and the identified neurons controlling the buccal muscle
CC
CC
         movement of achatina.
     -!- SIMILARITY: TO POSSIBLE PEPTIDE L5 FROM APLYSIA.
CC
DR
     PIR; A34662; A34662.
     Hormone; Amidation.
KW
FT
                                   AMIDATION.
     MOD RES
                  11
                          11
     SEQUENCE
                       1305 MW;
                                   82D6D5B9C7741365 CRC64;
                11 AA;
SQ
                            9.1%;
                                   Score 1; DB 1;
                                                     Length 11;
  Query Match
  Best Local Similarity
                           100.0%; Pred. No. 9.4e+04;
                                                                       Gaps
                                                                                0;
             1; Conservative
                                 0; Mismatches
                                                     0; Indels
                                                                   0;
  Matches
            3 G 3
Qу
            2 G 2
Db
RESULT 31
CORZ PERAM
     CORZ PERAM
                     STANDARD;
                                    PRT;
                                            11 AA.
ID
AC
     P11496;
     01-OCT-1989 (Rel. 12, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Corazonin.
     Periplaneta americana (American cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
```

OC

Blattidae; Periplaneta.

```
NCBI TaxID=6978;
OX
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Corpora cardiaca;
RC
     MEDLINE=89325572; PubMed=2753132;
RX
RA
     Veenstra J.A.;
     "Isolation and structure of corazonin, a cardioactive peptide from
RT
     the American cockroach.";
RT
     FEBS Lett. 250:231-234(1989).
RL
     -!- FUNCTION: Cardioactive peptide. Corazonin is probably involved
CC
         in the physiological regulation of the heart beat.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     PIR; S05002; S05002.
DR
     Neuropeptide; Amidation; Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1387 MW;
                                 C7CFF32D6415AB46 CRC64;
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
                                                                               0;
                              0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
  Matches
             1; Conservative
            3 G 3
Qу
            8 G 8
Db
RESULT 32
COXA CANFA
ID
     COXA CANFA
                    STANDARD;
                                    PRT:
                                            11 AA.
AC
     P99501;
     15-JUL-1998 (Rel. 36, Created)
DT
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     30-MAY-2000 (Rel. 39, Last annotation update)
     Cytochrome c oxidase polypeptide Va (EC 1.9.3.1) (Fragment).
DE
     COX5A.
GN
OS
     Canis familiaris (Dog).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OC
OX
     NCBI TaxID=9615;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Heart;
RX
     MEDLINE=98163340; PubMed=9504812;
RA
     Dunn M.J., Corbett J.M., Wheeler C.H.;
RT
     "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT
     dog heart proteins.";
RL
     Electrophoresis 18:2795-2802(1997).
CC
     -!- FUNCTION: This is the heme A-containing chain of cytochrome c
CC
         oxidase, the terminal oxidase in mitochondrial electron transport.
     -!- CATALYTIC ACTIVITY: 4 ferrocytochrome c + O(2) = 4 ferricytochrome
CC
         c + 2 H(2)0.
CC
CC
     -!- SUBCELLULAR LOCATION: Mitochondrial inner membrane.
     -!- SIMILARITY: Belongs to the cytochrome c oxidase Va family.
CC
DR
     HSC-2DPAGE; P99501; DOG.
DR
     InterPro; IPR003204; Cyt c ox5A.
DR
     Pfam; PF02284; COX5A; 1.
```

```
FT
                  11
                         11
                                  910B35C5B1AB11F5 CRC64;
     SEOUENCE
                11 AA;
                        1274 MW;
SQ
                                  Score 1; DB 1; Length 11;
  Query Match
                           9.1%;
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                                 0; Mismatches
                                                    0; Indels
 Matches
             1; Conservative
            3 G 3
Qу
            3 G 3
Db
RESULT 33
CX5A CONAL
     CX5A CONAL
                    STANDARD;
                                    PRT;
                                            11 AA.
ΙD
АC
     P58848;
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DΤ
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Conotoxin au5a.
DF.
     Conus aulicus (Court cone).
OS
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
     Neogastropoda; Conoidea; Conidae; Conus.
OC
     NCBI TaxID=89437;
OX
RN
     [1]
     SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
RP
     TISSUE=Venom;
RC
     MEDLINE=99452958; PubMed=10521453;
RX
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     "The T-superfamily of conotoxins.";
RT
     J. Biol. Chem. 274:30664-30671(1999).
RL
RN
     [2]
     ERRATUM.
RP
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     J. Biol. Chem. 274:36030-36030(1999).
RL
CC
     -!- FUNCTION: Causes dorsal fins drooping in fish. No effect is
CC
         observed when injected into mice.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1436.6; METHOD=LSIMS.
     -!- SIMILARITY: Belongs to the conotoxin T-superfamily.
CC
DR
     PIR; A59146; A59146.
KW
     Toxin.
FT
     DISULFID
                   2
                          9
FT
                   3
                         10
     DISULFID
                                  21A36775440059D7 CRC64;
                11 AA; 1441 MW;
SQ
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
                                                                               0:
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                   0; Gaps
```

Oxidoreductase; Heme; Mitochondrion; Inner membrane.

KW

```
10 R 10
QУ
            7 R 7
Db
RESULT 34
CX5B CONAL
     CX5B CONAL
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
     P58849;
AC
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DΤ
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DE
     Conotoxin au5b.
     Conus aulicus (Court cone).
os
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
     Neogastropoda; Conoidea; Conidae; Conus.
OC
     NCBI TaxID=89437;
OX
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Venom;
     MEDLINE=99452958; PubMed=10521453;
RX
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RΑ
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     "The T-superfamily of conotoxins.";
RT
     J. Biol. Chem. 274:30664-30671(1999).
RL
RN
     [2]
     ERRATUM.
RP
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
RL
     J. Biol. Chem. 274:36030-36030(1999).
     -!- FUNCTION: Causes dorsal fins drooping in fish. No effect is
CC
         observed when injected into mice (By similarity).
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1388.6; METHOD=LSIMS.
     -!- SIMILARITY: Belongs to the conotoxin T-superfamily.
CC
     PIR; B59146; B59146.
DR
KW
     Toxin.
                           9
                   2
FT
     DISULFID
                          10
FT
     DISULFID
                   3
                        1393 MW; 21A36775440042D7 CRC64;
     SEQUENCE
                11 AA;
SQ
  Query Match
                            9.1%;
                                  Score 1; DB 1; Length 11;
                           100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
                                                                       Gaps
                                                                               0;
                                  0; Mismatches
                                                    0; Indels
             1; Conservative
           10 R 10
Qу
            7 R 7
Db
RESULT 35
CXL1 CONMR
```

PRT;

11 AA.

ID CXL1 CONMR

STANDARD;

```
P58807;
AC
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DТ
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
     Lambda-conotoxin CMrVIA.
     Conus marmoreus (Marble cone).
OS
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
OC
     Neogastropoda; Conoidea; Conidae; Conus.
OX
     NCBI TaxID=42752;
RN
     [1]
     SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Venom;
     MEDLINE=20564325; PubMed=10988292;
RX
     Balaji R.A., Ohtake A., Sato K., Gopalakrishnakone P., Kini R.M.,
RA
     Seow K.T., Bay B.-H.;
RA
     "Lambda-conotoxins, a new family of conotoxins with unique disulfide
RT
     pattern and protein folding. Isolation and characterization from the
RT
     venom of Conus marmoreus.";
RT
     J. Biol. Chem. 275:39516-39522(2000).
RL
     -!- FUNCTION: Inhibits the neuronal noradrenaline transporter.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1237.93; MW ERR=0.21; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the chi/lambda-conotoxin family.
CC
     Neurotoxin; Toxin; Hydroxylation.
KW
                         11
                   2
FT
     DISULFID
                   3
     DISULFID
                          8
FT
                         10
     MOD RES
                  10
                                  HYDROXYLATION.
FT
                11 AA; 1226 MW;
                                  277AAC60B7232B58 CRC64;
SQ
     SEQUENCE
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
  Matches
             1; Conservative
                                0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            3 G 3
Qу
              Db
            4 G 4
RESULT 36
EFG CLOPA
                                   PRT;
                                            11 AA.
ID
     EFG CLOPA
                    STANDARD;
AC
     P81350;
DT
     15-JUL-1998 (Rel. 36, Created)
     15-JUL-1998 (Rel. 36, Last sequence update)
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Elongation factor G (EF-G) (CP 5) (Fragment).
DE
GN
     FUSA.
OS
     Clostridium pasteurianum.
     Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae;
OC
OC
     Clostridium.
OX
     NCBI TaxID=1501;
RN
     [1]
RP
     SEQUENCE.
RC
     STRAIN=W5;
RX
     MEDLINE=98291870; PubMed=9629918;
```

```
Flengsrud R., Skjeldal L.;
RA
     "Two-dimensional gel electrophoresis separation and N-terminal
RТ
     sequence analysis of proteins from Clostridium pasteurianum W5.";
RT
     Electrophoresis 19:802-806(1998).
RL
     -!- FUNCTION: This protein promotes the GTP-dependent translocation of
CC
         the nascent protein chain from the A-site to the P-site of the
CC
CC
         ribosome.
     -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC
     -!- SIMILARITY: Belongs to the GTP-binding elongation factor family.
CC
         EF-G/EF-2 subfamily.
CC
     InterPro; IPR000795; EF GTPbind.
DR
     PROSITE; PS00301; EFACTOR GTP; PARTIAL.
DR
     Elongation factor; Protein biosynthesis; GTP-binding.
KW
     NON TER
                         11
FT
                  11
                        1337 MW; 412E71F1D9C33B17 CRC64;
     SEQUENCE
SQ
                11 AA;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
                              0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            1: Conservative
  Matches
            5 K 5
Qy
              1
            1 K 1
Db
RESULT 37
FAR6 PENMO
                                           11 AA.
                                   PRT:
ID
     FAR6 PENMO
                    STANDARD;
AC
     P83321;
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     FMRFamide-like neuropeptide FLP6 (DGRTPALRLRF-amide).
DΕ
     Penaeus monodon (Penoeid shrimp).
OS
     Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC
     Eumalacostraca; Eucarida; Decapoda; Dendrobranchiata; Penaeoidea;
OC
     Penaeidae; Penaeus.
OC
OX
     NCBI TaxID=6687;
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Eyestalk;
RC
RX
     MEDLINE=21956277; PubMed=11959015;
     Sithigorngul P., Pupuem J., Krungkasem C., Longyant S.,
RA
     Chaivisuthangkura P., Sithigorngul W., Petsom A.;
RA
     "Seven novel FMRFamide-like neuropeptide sequences from the eyestalk
RT
RT
     of the giant tiger prawn Penaeus monodon.";
     Comp. Biochem. Physiol. 131B:325-337(2002).
RL
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- MASS SPECTROMETRY: MW=1301.8; METHOD=MALDI.
CC
     -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC
CC
     GO; GO:0007218; P:neuropeptide signaling pathway; TAS.
DR
     Neuropeptide; Amidation.
KW
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
                11 AA; 1301 MW; 9A19C860072DC771 CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
```

```
Best Local Similarity 100.0%; Pred. No. 9.4e+04;
                                                                 0; Gaps
                                                                              0;
             1; Conservative 0; Mismatches 0;
                                                       Indels
            3 G 3
Qy
             - 1
Db
            2 G 2
RESULT 38
HS70 PINPS
                                   PRT;
                                           11 AA.
     HS70 PINPS
                    STANDARD;
ID
AC
     P81672;
     15-JUL-1999 (Rel. 38, Created)
DT
     15-JUL-1999 (Rel. 38, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Heat shock 70 kDa protein (Fragment).
DE
     Pinus pinaster (Maritime pine).
OS
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Coniferopsida; Coniferales; Pinaceae; Pinus.
OC
OX
     NCBI TaxID=71647;
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Needle;
RC
     MEDLINE=99274088; PubMed=10344291;
RX
     Costa P., Pionneau C., Bauw G., Dubos C., Bahrman N., Kremer A.,
RA
     Frigerio J.-M., Plomion C.;
RA
     "Separation and characterization of needle and xylem maritime pine
RT
RT
     proteins.";
     Electrophoresis 20:1098-1108(1999).
RL
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this protein
CC
         (spot N164) is: 5.4, its MW is: 73 kDa.
CC
     -!- SIMILARITY: Belongs to the heat shock protein 70 family.
CC
KW
     ATP-binding; Heat shock; Multigene family.
FT
     NON TER
                   1
                          1
FT
     NON TER
                  11
                         11
                11 AA; 1228 MW; 037C1BE8DAA44DD0 CRC64;
     SEQUENCE
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
            1; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
Qу
            2 E 2
Db
            2 E 2
RESULT 39
LPW THETH
ID
     LPW THETH
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P05624;
DT
     01-NOV-1988 (Rel. 09, Created)
     01-NOV-1988 (Rel. 09, Last sequence update)
DT
     30-MAY-2000 (Rel. 39, Last annotation update)
     Trp operon leader peptide.
DE
     TRPL.
GN
OS
     Thermus thermophilus.
OC
     Bacteria; Deinococcus-Thermus; Deinococci; Thermales; Thermaceae;
```

```
OC
    Thermus.
    NCBI TaxID=274;
OX
RN
    [1]
RP
    SEQUENCE FROM N.A.
    STRAIN=HB8 / ATCC 27634;
RC
    MEDLINE=89000781; PubMed=2844259;
RX
    Sato S., Nakada Y., Kanaya S., Tanaka T.;
RA
    "Molecular cloning and nucleotide sequence of Thermus thermophilus
RT
RT
    HB8 trpE and trpG.";
RL
    Biochim. Biophys. Acta 950:303-312(1988).
CC
    -!- FUNCTION: THIS PROTEIN IS INVOLVED IN CONTROL OF THE BIOSYNTHESIS
        OF TRYPTOPHAN.
CC
CC
    This SWISS-PROT entry is copyright. It is produced through a collaboration
CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC
    the European Bioinformatics Institute. There are no restrictions on its
CC
    use by non-profit institutions as long as its content is in no way
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    modified and this statement is not removed. Usage by and for commercial
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    entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC
    or send an email to license@isb-sib.ch).
CC
    _____
CC
    EMBL; X07744; CAA30565.1; -.
DR
    Tryptophan biosynthesis; Leader peptide.
KW
    SEQUENCE 11 AA; 1228 MW; 364B295A772DC5A7 CRC64;
SQ
 Query Match
                          9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.4e+04;
 Matches
           1; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                          0;
           9 M 9
Qу
             -1
Db
           1 M 1
RESULT 40
MLG THETS
ID
    MLG THETS
                   STANDARD;
                                 PRT;
                                         11 AA.
AC
    P41989;
    01-NOV-1995 (Rel. 32, Created)
DT
    01-NOV-1995 (Rel. 32, Last sequence update)
DT
    16-OCT-2001 (Rel. 40, Last annotation update)
DT
    Melanotropin gamma (Gamma-melanocyte stimulating hormone) (Gamma-MSH).
DΕ
os
    Theromyzon tessulatum (Leech).
    Eukaryota; Metazoa; Annelida; Clitellata; Hirudinida; Hirudinea;
OC
    Rhynchobdellida; Glossiphoniidae; Theromyzon.
OC
OX
    NCBI TaxID=13286;
RN
    [1]
RP
    SEQUENCE.
RC
    TISSUE=Brain;
    MEDLINE=94298944; PubMed=8026574;
RX
    Salzet M., Wattez C., Bulet P., Malecha J.;
RA
    "Isolation and structural characterization of a novel peptide related
RT
    to gamma-melanocyte stimulating hormone from the brain of the leech
RT
RT
    Theromyzon tessulatum.";
    FEBS Lett. 348:102-106(1994).
RL
    -!- SIMILARITY: Belongs to the POMC family.
CC
DR
    PIR; S45698; S45698.
```

```
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SO
     SEOUENCE
                11 AA:
                       1486 MW;
                                  2DB8FACE6409C1E8 CRC64;
                           9.1%;
                                  Score 1; DB 1;
                                                    Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
                                                                  0; Gaps
                                                                              0;
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0: Indels
            9 M 9
Qу
              -1
            3 M 3
Db
RESULT 41
NXSN PSETE
                    STANDARD;
                                   PRT;
                                            11 AA.
ID
     NXSN PSETE
AC
     P59072;
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Short neurotoxin N1 (Alpha neurotoxin) (Fragment).
DE
     Pseudonaja textilis (Eastern brown snake).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
OC
     Elapidae; Acanthophiinae; Pseudonaja.
OX
     NCBI TaxID=8673;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Venom;
RX
     MEDLINE=99449602; PubMed=10518793;
RA
     Gong N.L., Armugam A., Jeyaseelan K.;
RT
     "Postsynaptic short-chain neurotoxins from Pseudonaja textilis: cDNA
RT
     cloning, expression and protein characterization.";
RL
     Eur. J. Biochem. 265:982-989(1999).
CC
     -!- FUNCTION: Lethal neurotoxin, binds and inhibits nicotinic
CC
         acetylcholine receptors (nAChR).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom gland.
     -!- MASS SPECTROMETRY: MW=6236; METHOD=Electrospray.
CC
     -!- MISCELLANEOUS: LD(50) is 0.84 mg/kg by intravenous injection.
CC
     -!- SIMILARITY: Belongs to the snake toxin family.
CC
     InterPro; IPR003571; Snake toxin.
DR
     PROSITE; PS00272; SNAKE_TOXIN; PARTIAL.
DR
KW
     Toxin; Neurotoxin; Postsynaptic neurotoxin;
KW
     Acetylcholine receptor inhibitor; Multigene family.
FT
     UNSURE
                   3
                          3
FT
     NON TER
                  11
                         11
                                  0D1EF0C81B58732B CRC64;
SQ
     SEQUENCE
                11 AA; 1319 MW;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
                                 0; Mismatches
             1; Conservative
                                                                  0; Gaps
                                                                              0;
  Matches
                                                    0; Indels
            5 K 5
Qу
            5 K 5
Db
```

Hormone; Amidation.

KW

```
RESULT 42
OAIF SARBU
     OAIF SARBU
                                    PRT:
                                            11 AA.
ID
                    STANDARD;
AC
     P83518;
     10-OCT-2003 (Rel. 42, Created)
DT
     10-OCT-2003 (Rel. 42, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Ovary-derived ACE interactive factor (Neb-ODAIF) [Contains: Neb-
DE
     ODAIF(1-9); Neb-ODAIF(1-7)].
     Sarcophaga bullata (Grey flesh fly) (Neobellieria bullata).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
OC
     Sarcophagidae; Sarcophaga.
OX
     NCBI TaxID=7385;
RN
     [1]
     SEQUENCE, SYNTHESIS, CHARACTERIZATION, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Ovary;
     MEDLINE=22272747; PubMed=12383874;
RX
     Vandingenen A., Hens K., Baggerman G., Macours N., Schoofs L.,
RA
     De Loof A., Huybrechts R.;
RA
     "Isolation and characterization of an angiotensin converting enzyme
RT
     substrate from vitellogenic ovaries of Neobellieria bullata.";
RT
     Peptides 23:1853-1863(2002).
RL
     -!- FUNCTION: Substrate for angiotensin converting enzyme (ACE) in
CC
CC
         vitro.
     -!- PTM: ACE hydrolyzes Neb-ODAIF by sequentially cleaving off two C-
CC
         terminal dipeptides.
CC
     -!- MASS SPECTROMETRY: MW=1312.7; METHOD=MALDI; RANGE=1-11.
CC
     -!- SIMILARITY: To the N-terminal part of insect vitellogenins.
CC
FT
                   1
                         11
                                  NEB-ODAIF.
     PEPTIDE
                   1
                          9
                                  NEB-ODAIF(1-9).
FT
     PEPTIDE
                          7
FT
     PEPTIDE
                   1
                                  NEB-ODAIF (1-7).
     SEQUENCE
                11 AA; 1314 MW; 4E114BB566C5A763 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
             1; Conservative 0; Mismatches
                                                                               0;
  Matches
                                                    0; Indels
                                                                   0;
                                                                       Gaps
            5 K 5
Qу
            2 K 2
Db
RESULT 43
RANC RANPI
                    STANDARD;
                                    PRT:
                                            11 AA.
TD
     RANC RANPI
     P089\overline{51};
AC
     01-NOV-1988 (Rel. 09, Created)
DT
     01-NOV-1988 (Rel. 09, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Ranatensin-C.
     Rana pipiens (Northern leopard frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
OX
     NCBI TaxID=8404;
RN
     [1]
```

```
RP
     SEQUENCE.
     TISSUE=Skin secretion;
RC
RX
    MEDLINE=84131098; PubMed=6141890;
    Nakajima T.;
RA
    Unpublished results, cited by:
RL
     Erspamer V., Erspamer G.F., Mazzanti G., Endean R.;
RL
     Comp. Biochem. Physiol. 77C:99-108(1984).
RL
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
CC
     -!- SIMILARITY: Belongs to the bombesin/neuromedin B/ranatensin
CC
         family.
     InterPro; IPR000874; Bombesin.
DR
     Pfam; PF02044; Bombesin; 1.
DR
     PROSITE; PS00257; BOMBESIN; 1.
DR
     Amphibian defense peptide; Bombesin family; Amidation.
KW
                         11
                                  AMIDATION.
FT
    MOD RES
                  11
                11 AA; 1304 MW; D6C9885A61ADC366 CRC64;
     SEQUENCE
SQ
                          9.1%; Score 1; DB 1; Length 11;
 Query Match
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
                                                                              0;
            1; Conservative 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
 Matches
            1 A 1
Qу
            6 A 6
Db
RESULT 44
RE41 LITRU
     RE41 LITRU
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P82074:
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Rubellidin 4.1.
     Litoria rubella (Desert tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OC
OX
     NCBI TaxID=104895;
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin secretion;
RC
     Steinborner S.T., Wabnitz P.A., Waugh R.J., Bowie J.H., Gao C.,
RA
     Tyler M.J., Wallace J.C.;
RA
     "The structure of new peptides from the Australin red tree frog
RT
     'Litoria rubella'. The skin peptide profile as a probe for the study
RT
     of evolutionary trends of amphibians.";
RT
     Aust. J. Chem. 49:955-963(1996).
RL
   . -!- FUNCTION: Shows neither neuropeptide activity nor antibiotic
CC
CC
         activity.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.
CC
     -!- MASS SPECTROMETRY: MW=1039; METHOD=FAB.
CC
     Amphibian defense peptide; Amidation.
KW
                         11
                                  AMIDATION.
FT
     MOD RES
                  11
                11 AA; 1040 MW; 84ED5CBC2877205A CRC64;
SQ
     SEQUENCE
```

```
9.1%; Score 1; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 9.4e+04;
           1; Conservative 0; Mismatches 0; Indels
                                                             0; Gaps
                                                                         0;
           3 G 3
Qу
             - [
           1 G 1
Db
RESULT 45
RR2 CONAM
                   STANDARD;
                                 PRT;
                                        11 AA.
ΙD
    RR2 CONAM
AC
    P42341;
    01-NOV-1995 (Rel. 32, Created)
DT
    01-NOV-1995 (Rel. 32, Last sequence update) 28-FEB-2003 (Rel. 41, Last annotation update)
DΤ
DT
    Chloroplast 30S ribosomal protein S2 (Fragment).
DE
GN
    Conopholis americana (Squawroot).
OS
OG
    Chloroplast.
    Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
    Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
     lamiids; Lamiales; Orobanchaceae; Orobancheae; Conopholis.
OC
    NCBI TaxID=4179;
OX
RN
     [1]
    SEQUENCE FROM N.A.
RP
    MEDLINE=92145776; PubMed=1723664;
RX
     Taylor G., Wolfe K.H., Morden C.W., Depamphilis C.W., Palmer J.D.;
RA
     "Lack of a functional plastid tRNA(Cys) gene is associated with loss
RT
     of photosynthesis in a lineage of parasitic plants.";
RT
     Curr. Genet. 20:515-518(1991).
RL
     -!- SIMILARITY: Belongs to the S2P family of ribosomal proteins.
CC
     _____
CC
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CC
     between the Swiss Institute of Bioinformatics and the EMBL outstation -
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     the European Bioinformatics Institute. There are no restrictions on its
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     use by non-profit institutions as long as its content is in no way
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     modified and this statement is not removed. Usage by and for commercial
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     entities requires a license agreement (See http://www.isb-sib.ch/announce/
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     or send an email to license@isb-sib.ch).
CC
     ______
CC
     EMBL; X64567; CAA45868.1; -.
DR
DR
     PIR; S32575; S32575.
DR
     HAMAP; MF 00291; -; 1.
     InterPro; IPR001865; Ribosomal S2.
DR
     PROSITE; PS00962; RIBOSOMAL S2 1; PARTIAL.
DR
     PROSITE; PS00963; RIBOSOMAL_S2_2; PARTIAL.
DR
     Ribosomal protein; Chloroplast.
KW
FT
     NON TER
                 11
                       11
               11 AA; 1497 MW; 76CD719954536B44 CRC64;
SQ
     SEQUENCE
                          9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.4e+04;
  Matches 1; Conservative 0; Mismatches 0; Indels
                                                                         0;
                                                              0; Gaps
```

```
11 E 11
```

Db

```
RESULT 46
T2P1 PROVU
    T2P1 PROVU
                                 PRT:
                                         11 AA.
                   STANDARD;
AC
    P31031;
    01-JUL-1993 (Rel. 26, Created)
DT
    01-JUL-1993 (Rel. 26, Last sequence update)
DT
    10-OCT-2003 (Rel. 42, Last annotation update)
DT
    Type II restriction enzyme PvuI (EC 3.1.21.4) (Endonuclease PvuI)
DE
DE
    (R.PvuI) (Fragment).
GN
    PVUIR.
    Proteus vulgaris.
OS
    Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
    Enterobacteriaceae; Proteus.
OC
    NCBI TaxID=585;
OX
RN
    [1]
    SEQUENCE FROM N.A.
RP
    STRAIN=ATCC 13315;
RC
    MEDLINE=93087186; PubMed=1454536;
RX
    Smith M.D., Longo M., Gerard G.F., Chatterjee D.K.;
RA
    "Cloning and characterization of genes for the PvuI restriction and
RT
    modification system.";
RT
    Nucleic Acids Res. 20:5743-5747(1992).
RL
    -!- FUNCTION: RECOGNIZES THE DOUBLE-STRANDED SEQUENCE CGATCG AND
CC
        CLEAVES AFTER T-4.
CC
    -!- CATALYTIC ACTIVITY: Endonucleolytic cleavage of DNA to give
CC
        specific double-stranded fragments with terminal 5'-phosphates.
CC
     ______
CC
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CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
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    the European Bioinformatics Institute. There are no restrictions on its
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    modified and this statement is not removed. Usage by and for commercial
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CC
CC
    or send an email to license@isb-sib.ch).
CC
    EMBL; L04163; AAA25660.1; -.
DR
DR
    PIR; S35490; S35490.
DR
    REBASE; 1541; PvuI.
    Restriction system; Hydrolase; Nuclease; Endonuclease.
KW
FT
    NON TER
                  1
                        1
               11 AA; 1300 MW; 9F0CDE7955B72B1A CRC64;
SQ
     SEQUENCE
                          9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9.4e+04;
                                                                          0;
           1; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
  Matches
           2 E 2
Qу
Db
           5 E 5
```

RESULT 47 TIN1 HOPTI

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TIN1 HOPTI
                    STANDARD;
ID
AC
     P82651;
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Tigerinin-1.
DΕ
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
OC
     Hoplobatrachus.
OX
     NCBI TaxID=103373;
RN
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RP
RC
     TISSUE=Skin secretion;
     PubMed=11031261;
RX
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
RA
     Devi A.S., Nagaraj R., Sitaram N.;
RA
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
     tigerina.";
RT
     J. Biol. Chem. 276:2701-2707(2001).
RL
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- MASS SPECTROMETRY: MW=1342; METHOD=MALDI.
CC
     Amphibian defense peptide; Antibiotic; Fungicide; Amidation.
KW
FT
     DISULFID
                   2
                         10
     MOD RES
                  11
                         11
                                  AMIDATION.
FT
     SEOUENCE
                11 AA; 1344 MW;
                                  A2087DC960476056 CRC64;
SO
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
                                 0; Mismatches
                                                                  0; Gaps
                                                                               0;
  Matches
             1; Conservative
                                                    0; Indels
Qу
            9 M 9
              - 1
Db
            4 M 4
RESULT 48
TIN4 HOPTI
     TIN4 HOPTI
                                    PRT;
                                            11 AA.
ID
                    STANDARD;
     P82654;
AС
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Tigerinin-4.
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
OC
     Hoplobatrachus.
     NCBI TaxID=103373;
OX
RN
RΡ
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RC
     TISSUE=Skin secretion;
RX
     PubMed=11031261;
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
RA
```

PRT;

11 AA.

```
Devi A.S., Nagaraj R., Sitaram N.;
RA
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
RT
    tigerina.";
     J. Biol. Chem. 276:2701-2707(2001).
RL
    -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
    -!- SUBCELLULAR LOCATION: Secreted.
CC
    -!- TISSUE SPECIFICITY: Skin.
CC
    -!- MASS SPECTROMETRY: MW=1247; METHOD=MALDI.
CC
    Amphibian defense peptide; Antibiotic.
KW
     DISULFID
                   3
                        11
FT
                11 AA; 1248 MW; 117D8EFD37605DCB CRC64;
     SEQUENCE
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
 Best Local Similarity 100.0%; Pred. No. 9.4e+04;
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
           1; Conservative
           10 R 10
Qу
Db
            1 R 1
RESULT 49
TKC2 CALVO
                                           11 AA.
    TKC2 CALVO
                    STANDARD;
                                   PRT;
ID
     P41518;
AC
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Callitachykinin II.
     Calliphora vomitoria (Blue blowfly).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
OC
     Calliphoridae; Calliphora.
OX
     NCBI TaxID=27454;
RN
     [1]
RP
     SEQUENCE, AND SYNTHESIS.
RX
     MEDLINE=95075727; PubMed=7984492;
     Lundquist C.T., Clottens F.L., Holman G.M., Nichols R., Nachman R.J.,
RA
     Naessel D.R.;
RA
     "Callitachykinin I and II, two novel myotropic peptides isolated from
RT
     the blowfly, Calliphora vomitoria, that have resemblances to
RT
RT
     tachykinins.";
     Peptides 15:761-768(1994).
RL
CC
     -!- FUNCTION: Myoactive peptide.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- SIMILARITY: SOME SIMILARITY TO TACHYKININS.
CC
     Tachykinin; Neuropeptide; Amidation.
KW
FT
     MOD, RES
                  11
                         11
                                  AMIDATION.
                11 AA; 1103 MW; 15D7E3F9C9CDD444 CRC64;
SO
     SEOUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
                                                                            0;
             1; Conservative 0; Mismatches
                                                                  0; Gaps
  Matches
                                                   0; Indels
Qy
            3 G 3
              1
```

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RESULT 50
TKN1 PSEGU
     TKN1 PSEGU
                    STANDARD;
                                    PRT:
                                            11 AA.
AC
     P42986;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
     Kassinin-like peptide K-I (PG-KI).
DE
     Pseudophryne guentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
     MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RT
RL
     Peptides 11:299-304(1990).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; B60409; B60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
     InterPro; IPR008215; Tachykinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
     MOD RES
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
                   1
                          1
     MOD RES
                         11
                                   AMIDATION.
FT
                  11
     SEQUENCE
                11 AA; 1269 MW;
                                   3DBA7C37C9CB1AB7 CRC64;
SQ
                            9.1%;
                                   Score 1; DB 1; Length 11;
  Query Match
                          100.0%;
                                   Pred. No. 9.4e+04;
  Best Local Similarity
                                  0; Mismatches
                                                    0; Indels
                                                                       Gaps
                                                                               0;
             1; Conservative
            2 E 2
Qy
Db
            6 E 6
RESULT 51
TKN1 UPEIN
ID
     TKN1 UPEIN
                    STANDARD;
                                    PRT;
                                            11 AA.
     P82026;
AC
```

```
DT
     30-MAY-2000 (Rel. 39, Created)
     30-MAY-2000 (Rel. 39, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Uperin 1.1.
     Uperoleia inundata (Floodplain toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Uperoleia.
OX
     NCBI TaxID=104953;
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Skin secretion;
     Bradford A.M., Raftery M.J., Bowie J.H., Tyler M.J., Wallace J.C.,
RA
RA
     Adams G.W., Severini C.;
RT
     "Novel uperin peptides from the dorsal glands of the australian
     floodplain toadlet Uperoleia inundata.";
RT
     Aust. J. Chem. 49:475-484(1996).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
     -!- MASS SPECTROMETRY: MW=1208; METHOD=FAB.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SO
     SEQUENCE
                11 AA; 1226 MW; 3293693E59CDD457 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
                                 0; Mismatches
                                                                              0;
  Matches
             1; Conservative
                                                    0; Indels
                                                                  0; Gaps
            1 A 1
Qу
            2 A 2
Db
RESULT 52
TKN1 UPERU
     TKN1 UPERU
                                            11 AA.
ID
                    STANDARD;
                                   PRT;
AC
     P08612;
DT
     01-AUG-1988 (Rel. 08, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Uperolein.
OS
     Uperoleia rugosa (Wrinkled toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Uperoleia.
OX
     NCBI TaxID=8368;
RN
     [1]
```

```
RC
    TISSUE=Skin secretion;
RX
    MEDLINE=75131227; PubMed=1120493;
    Anastasi A., Erspamer V., Endean R.;
RA
     "Structure of uperolein, a physalaemin-like endecapeptide occurring
RT
     in the skin of Uperoleia rugosa and Uperoleia marmorata.";
RT
     Experientia 31:394-395(1975).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
        muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
    Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
    MOD RES
FT
                   1
                          1
    MOD RES
                                  AMIDATION.
                         11
FT
                  11
                                  32867C3E59CDD457 CRC64;
                        1252 MW;
SQ
     SEQUENCE
                11 AA;
 Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
             1; Conservative
 Matches
            1 A 1
Qу
            6 A 6
Db
RESULT 53
TKN2 PSEGU
     TKN2 PSEGU
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P42987;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Kassinin-like peptide K-II (PG-KII).
     Pseudophryne guentheri (Guenther's toadlet).
os
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Pseudophryne.
     NCBI TaxID=30349;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=90287814; PubMed=2356157;
RA
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
     Roberts J.D., Melchiorri P., Erspamer V.;
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
RT
     the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
```

SEQUENCE.

RP

```
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
    -!- TISSUE SPECIFICITY: Skin.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; C60409; C60409.
DR
    InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
FT
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1246 MW;
                                  3A247C37C9CB1AB7 CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
                                                                              0;
  Matches
            1; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
            2 E 2
Qу
            6 E 6
Db
RESULT 54
TKN2 UPERU
     TKN2 UPERU
                    STANDARD;
                                   PRT:
                                           11 AA.
AC
     P08616;
DT
     01-AUG-1988 (Rel. 08, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Rugosauperolein II ([Lys5,Thr6]physalaemin).
os
     Uperoleia rugosa (Wrinkled toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Uperoleia.
OX
     NCBI TaxID=8368;
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Skin secretion;
RC
RX
     MEDLINE=80223080; PubMed=7389029;
     Nakajima T., Yasuhara T., Erspamer V., Erspamer G.F., Negri L.;
RA
     "Physalaemin- and bombesin-like peptides in the skin of the
RT
RT
     Australian leptodactylid frog Uperoleia rugosa.";
     Chem. Pharm. Bull. 28:689-695(1980).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
```

```
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                                   PYRROLIDONE CARBOXYLIC ACID.
                           1
                  11
FT
     MOD RES
                          11
                                   AMIDATION.
     SEQUENCE
                11 AA; 1270 MW;
SO
                                   3293693E59D1A327 CRC64;
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                           100.0%; Pred. No. 9.4e+04;
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                    0; Gaps
            1 A 1
Qу
Db
            2 A 2
RESULT 55
TKN3_PSEGU
ID
     TKN3 PSEGU
                     STANDARD;
                                    PRT:
                                             11 AA.
AC
     P42988;
DT
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Kassinin-like peptide K-III (PG-KIII).
OS
     Pseudophryne quentheri (Guenther's toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
    MEDLINE=90287814; PubMed=2356157;
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F., Roberts J.D., Melchiorri P., Erspamer V.;
RA
RA
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; D60409; D60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
DR
     PROSITE; PS00267; TACHYKININ; 1.
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                           1
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                          11
                                   AMIDATION.
SO
     SEQUENCE
                        1268 MW;
                                   3DBA7C37C9CB1457 CRC64;
                11 AA;
```

```
Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
  Matches
             1; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            2 E 2
Qу
Db
            6 E 6
RESULT 56
TKN4 PSEGU
ID
     TKN4 PSEGU
                    STANDARD;
                                   PRT:
                                            11 AA.
AC
     P42989;
DT
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Substance P-like peptide I (PG-SPI).
OS-
     Pseudophryne guentheri (Guenther's toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
RΡ
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=90287814; PubMed=2356157;
RA
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
RT
     the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; E60409; E60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
                11 AA; 1294 MW;
     SEQUENCE
                                  3A247C2CC9CB1AB7 CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
                              0; Mismatches
                                                                              0;
  Matches
             1; Conservative
                                                    0; Indels
                                                                  0;
                                                                      Gaps
            2 E 2
Qу
            6 E 6
Db
```

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TKN5 PSEGU
     TKN5 PSEGU
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
     P42990;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DΕ
     Substance P-like peptide II (PG-SPII).
OS
     Pseudophryne guentheri (Guenther's toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=90287814; PubMed=2356157;
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
     Peptides 11:299-304(1990).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR: F60409; F60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
     InterPro; IPR008215; Tachykinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
    MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
    MOD RES
                  11
                         11
FT
                                  AMIDATION.
SO
     SEQUENCE
                11 AA; 1293 MW; 3A247C2CC9CB1457 CRC64;
  Query Match
                           9.1%;
                                 Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
  Matches
                Conservative
             1;
                                 0; Mismatches
                                                    0;
                                                                               0;
                                                        Indels
                                                                  0; Gaps
            2 E 2
Qy
            6 E 6
Db
RESULT 58
TKNA CHICK
     TKNA CHICK
ΙD
                    STANDARD;
                                   PRT;
                                            11 AA.
     P19850:
AC
DT
     01-FEB-1991 (Rel. 17, Created)
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RESULT 57

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01-FEB-1991 (Rel. 17, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Substance P.
OS
     Gallus gallus (Chicken).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
ОÇ
OC
     Gallus.
OX
     NCBI TaxID=9031;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Intestine;
RX
     MEDLINE=88204263; PubMed=2452461;
RA
     Conlon J.M., Katsoulis S., Schmidt W.E., Thim L.;
RT
     "[Arg3]substance P and neurokinin A from chicken small intestine.";
RL
     Regul. Pept. 20:171-180(1988).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; JN0023; JN0023.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
     MOD RES
FT
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1377 MW; 21487FE3C9D6C6C7 CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
             1; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                              0;
                                                                  0; Gaps
            3 G 3
Qy
            9 G 9
Db
RESULT 59
TKNA GADMO
     TKNA GADMO
                    STANDARD:
                                   PRT:
                                           11 AA.
     P28498:
AC
DT
     01-DEC-1992 (Rel. 24, Created)
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Substance P.
OS
     Gadus morhua (Atlantic cod).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Paracanthopterygii; Gadiformes; Gadidae; Gadus.
OX
     NCBI TaxID=8049;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Brain;
    MEDLINE=92298992; PubMed=1376687;
RX
     Jensen J., Conlon J.M.;
RA
RT
     "Substance-P-related and neurokinin-A-related peptides from the brain
```

DT

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RT
     of the cod and trout.";
     Eur. J. Biochem. 206:659-664(1992).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; S23306; S23306.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
FT
    MOD RES
                  11
                        11
                                  AMIDATION (BY SIMILARITY).
     SEQUENCE
                11 AA; 1315 MW; 214860D759D6C6C7 CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
 Matches
            1; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            5 K 5
Qу
            1 K 1
Db
RESULT 60
TKNA HORSE
ID
    TKNA HORSE
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P01290;
     21-JUL-1986 (Rel. 01, Created)
DT
     21-JUL-1986 (Rel. 01, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Substance P.
    TAC1 OR NKNA OR TAC2 OR NKA.
GN
OS
     Equus caballus (Horse), and
     Cavia porcellus (Guinea pig).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
OX
    NCBI TaxID=9796, 10141;
RN
     [1]
RΡ
     SEQUENCE.
RC
     SPECIES=Horse;
RA
     Studer R.O., Trzeciak A., Lergier W.;
RT
     "Isolation and amino-acid sequence of substance P from horse
RT
     intestine.";
RL
     Helv. Chim. Acta 56:860-866(1973).
RN
     [2]
RP
     SEQUENCE.
     SPECIES=C.porcellus;
RC
RX
    MEDLINE=90044685; PubMed=2478925;
RA
    Murphy R.;
     "Primary amino acid sequence of quinea-pig substance P.";
RT
RL
     Neuropeptides 14:105-110(1989).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
```

```
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
        muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; A01558; SPHO.
     PIR; A60654; A60654.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
    InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
FT
     MOD RES
                  11
                                  AMIDATION.
                         1.1
SQ
     SEQUENCE
                11 AA; 1349 MW;
                                  3E757FE3C9D6C6C7 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
 Matches
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
           10 R 10
Qу
Db
            1 R 1
RESULT 61
TKNA ONCMY
     TKNA ONCMY
                    STANDARD;
                                   PRT:
                                           11 AA.
AC
     P28499;
DT
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Substance P.
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OC
OX
     NCBI TaxID=8022;
RN
    [1]
RP
     SEQUENCE.
RC
     TISSUE=Brain;
RX
    MEDLINE=92298992; PubMed=1376687;
     Jensen J., Conlon J.M.;
RA
     "Substance-P-related and neurokinin-A-related peptides from the brain
RT
RT
     of the cod and trout.";
RL
     Eur. J. Biochem. 206:659-664(1992).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; S23308; S23308.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
```

```
Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
FT
                                  AMIDATION (BY SIMILARITY).
                  11
                         11
     SEQUENCE
                11 AA; 1358 MW; 214860DEC9D6D1F7 CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
             1; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            5 K 5
Qγ
Db
            1 K 1
RESULT 62
TKNA RANCA
ID
     TKNA RANCA
                    STANDARD;
                                   PRT:
                                           11 AA.
AC
     P22688;
     01-AUG-1991 (Rel. 19, Created)
DT
     01-AUG-1991 (Rel. 19, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ranatachykinin A (RTK A).
DE
OS
     Rana catesbeiana (Bull frog).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
OX
    NCBI TaxID=8400;
RN
     [1]
     SEQUENCE, AND SYNTHESIS.
RP
RC
     TISSUE=Brain, and Intestine;
RX
    MEDLINE=91254337; PubMed=2043143;
RA
     Kozawa H., Hino J., Minamino N., Kangawa K., Matsuo H.;
     "Isolation of four novel tachykinins from frog (Rana catesbeiana)
RT
RT
    brain and intestine.";
     Biochem. Biophys. Res. Commun. 177:588-595(1991).
RL
RN
     [2]
     SEQUENCE.
RP
RC
     TISSUE=Intestine;
    MEDLINE=94023216; PubMed=8210506;
RX
     Kangawa K., Kozawa H., Hino J., Minamino N., Matsuo H.;
RA
RT
     "Four novel tachykinins in frog (Rana catesbeiana) brain and
RT
     intestine.";
     Regul. Pept. 46:81-88(1993).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
        muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
    -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; A61033; A61033.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
    Tachykinin; Neuropeptide; Amidation.
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
     SEOUENCE
              11 AA; 1311 MW;
                                  200D60CC59D40AB7 CRC64;
SO
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9.1%; Score 1; DB 1; Length 11;
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                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            5 K 5
Db
            1 K 1
RESULT 63
TKNA RANRI
ID
     TKNA RANRI
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P29207;
DT
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
     Ranakinin (Substance-P-related peptide).
DΕ
     Rana ridibunda (Laughing frog) (Marsh frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
     NCBI TaxID=8406;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Brain;
     MEDLINE=92044543; PubMed=1658233;
RX
     O'Harte F., Burcher E., Lovas S., Smith D.D., Vaudry H., Conlon J.M.;
RA
     "Ranakinin: a novel NK1 tachykinin receptor agonist isolated with
RT
RT
     neurokinin B from the brain of the frog Rana ridibunda.";
RL
     J. Neurochem. 57:2086-2091(1991).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     InterPro; IPR002040; Tachy_Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
     Tachykinin; Neuropeptide; Amidation.
KW
                                  AMIDATION.
FT
     MOD RES
                         11
                  11
SQ
     SEQUENCE
                11 AA;
                       1352 MW;
                                  3A2460CC59D40B07 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.4e+04;
  Best Local Similarity
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                              0;
                                                                      Gaps
            5 K 5
Qу
Db
            1 K 1
RESULT 64
TKNA SCYCA
     TKNA SCYCA
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P41333;
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DT
     01-FEB-1995 (Rel. 31, Created)
DT
     01-FEB-1995 (Rel. 31, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Scyliorhinus canicula (Spotted dogfish) (Spotted catshark).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;
OC
OC
     Elasmobranchii; Galeomorphii; Galeoidea; Carcharhiniformes;
OC
     Scyliorhinidae; Scyliorhinus.
OX
     NCBI TaxID=7830;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Brain:
ВX
     MEDLINE=93292508; PubMed=7685693;
RA
     Waugh D., Wang Y., Hazon N., Balment R.J., Conlon J.M.;
RT
     "Primary structures and biological activities of substance-P-related
     peptides from the brain of the dogfish, Scyliorhinus canicula.";
RT
     Eur. J. Biochem. 214:469-474(1993).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; S33300; S33300.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
FT
     MOD RES
                                  AMIDATION.
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1278 MW; 214860DEC9D6D867 CRC64;
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                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
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  Matches
             1; Conservative
                                 0: Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            5 K 5
Qу
            1 K 1
RESULT 65
TKND RANCA
ID
     TKND RANCA
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P22691;
DT
     01-AUG-1991 (Rel. 19, Created)
     01-AUG-1991 (Rel. 19, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Ranatachykinin D (RTK D).
OS
     Rana catesbeiana (Bull frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OX
     NCBI TaxID=8400;
RN
     [1]
RP
     SEQUENCE, AND SYNTHESIS.
RC
     TISSUE=Intestine;
     MEDLINE=91254337; PubMed=2043143;
RX
     Kozawa H., Hino J., Minamino N., Kangawa K., Matsuo H.;
RA
RT
     "Isolation of four novel tachykinins from frog (Rana catesbeiana)
```

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brain and intestine.";
RL
     Biochem. Biophys. Res. Commun. 177:588-595(1991).
RN
     [2]
RP
     SEQUENCE.
RC
     TISSUE=Intestine;
RX
     MEDLINE=94023216; PubMed=8210506;
RA
     Kangawa K., Kozawa H., Hino J., Minamino N., Matsuo H.;
RT
     "Four novel tachykinins in frog (Rana catesbeiana) brain and
RT
     intestine.";
RL
     Regul. Pept. 46:81-88(1993).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; D61033; D61033.
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     PROSITE; PS00267; TACHYKININ; FALSE NEG.
KW
     Tachykinin; Neuropeptide; Amidation.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
SQ
                11 AA; 1350 MW; 3A34256C59D40B07 CRC64;
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  Best Local Similarity
                          100.0%; Pred. No. 9.4e+04;
  Matches
             1; Conservative
                                 0; Mismatches
                                                  0;
                                                       Indels
                                                                      Gaps
                                                                               0;
            5 K 5
Qv
            1 K 1
Db
RESULT 66
TKN ELEMO
ID
     TKN ELEMO
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P01293;
DT
     21-JUL-1986 (Rel. 01, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Eledoisin.
OS
     Eledone moschata (Musky octopus) (Ozaena moschata), and
OS
     Eledone cirrhosa (Curled octopus) (Ozaena cirrosa).
OC
     Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC
     Octopodiformes; Octopoda; Incirrata; Octopodidae; Eledone.
OX
     NCBI TaxID=6641, 102876;
RN
     [1]
RP
     SEQUENCE.
RA
     Anastasi A., Erspamer V.;
RT
     "The isolation and amino acid sequence of eledoisin, the active
     endecapeptide of the posterior salivary glands of Eledone.";
RT
RL
     Arch. Biochem. Biophys. 101:56-65(1963).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
```

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CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; A01561; EOOC.
DR
     PIR; B01561; EOOCC.
DR
     PDB; 1MXQ; 18-FEB-03.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Pyrrolidone carboxylic acid;
KW
KW
     3D-structure.
     MOD RES
FT
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SQ
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                                  Score 1; DB 1; Length 11;
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                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                     Gaps
                                                                               0;
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Qу
              1
Db
            4 K 4
RESULT 67
TKN PHYFU
     TKN PHYFU
                    STANDARD;
                                   PRT;
                                            11 AA.
ID
AC
     P08615;
DT
     01-AUG-1988 (Rel. 08, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Physalaemin.
OS
     Physalaemus fuscumaculatus (Neotropical frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Leptodactylidae;
OC
OC
     Leptodactylinae; Physalaemus.
OX
    NCBI TaxID=8378;
RN
     [1]
RP
     SEOUENCE.
RC
     TISSUE=Skin secretion;
    MEDLINE=66076612; PubMed=5857249;
RX
RA
     Erspamer V., Anastasi A., Bertaccini G., Cei J.M.;
RT
     "Structure and pharmacological actions of physalaemin, the main
RT
     active polypeptide of the skin of Physalaemus fuscumaculatus.";
     Experientia 20:489-490(1964).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
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DR
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DR
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     Pfam; PF02202; Tachykinin; 1.
DR
DR
     PROSITE; PS00267; TACHYKININ; 1.
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
FT
    MOD RES
                          1
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                   1
FT
                         11
    MOD RES
                  11
                                  AMIDATION.
```

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SO
     SEQUENCE
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             1; Conservative
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                                                    0;
                                                                               0;
                                                       Indels
                                                                  0; Gaps
            1 A 1
Qy
Db
            2 A 2
RESULT 68
UF05 MOUSE
ID
     UF05 MOUSE
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P38643;
DT
     01-OCT-1994 (Rel. 30, Created)
     01-OCT-1994 (Rel. 30, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DΕ
     Unknown protein from 2D-page of fibroblasts (P48) (Fragment).
OS
     Mus musculus (Mouse).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX
     NCBI TaxID=10090;
RN
     [1]
RP
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RC
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RX
     MEDLINE=95009907; PubMed=7523108;
RA
     Merrick B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;
     "Separation and sequencing of familiar and novel murine proteins
RT
RT
     using preparative two-dimensional gel electrophoresis.";
RL
     Electrophoresis 15:735-745(1994).
CC
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
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FT
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                  11
                         11
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SO
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  Matches
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                               0;
Qу
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            1 K 1
Db
RESULT 69
ULAG HUMAN
     ULAG HUMAN
                                    PRT;
                                            11 AA.
ΙD
                    STANDARD;
AC
     P31933;
DT
     01-JUL-1993 (Rel. 26, Created)
     01-JUL-1993 (Rel. 26, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DΕ
     Unknown protein from 2D-page of liver tissue (Spot 118) (Fragment).
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
     NCBI TaxID=9606;
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RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Liver;
RX
     MEDLINE=94147969; PubMed=8313870;
RA
     Hughes G.J., Frutiger S., Paquet N., Pasquali C., Sanchez J.-C.,
RA
     Tissot J.-D., Bairoch A., Appel R.D., Hochstrasser D.F.;
RT
     "Human liver protein map: update 1993.";
RL
     Electrophoresis 14:1216-1222(1993).
CC
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CC
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DR
     SWISS-2DPAGE; P31933; HUMAN.
     Siena-2DPAGE; P31933; -.
DR
                  11
FT
     NON TER
                         11
SQ
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                11 AA;
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                                  EDABD37F272DDB0A CRC64;
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  Matches
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Qу
            5 E 5
Db
RESULT 70
UXB2 YEAST
     UXB2 YEAST
ID
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                                   PRT;
                                            11 AA.
     P99013;
AC
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DE
     Unknown protein from 2D-page (Spot 2D-000K2F) (Fragment).
     Saccharomyces cerevisiae (Baker's yeast).
OS
OC
     Eukaryota; Funqi; Ascomycota; Saccharomycotina; Saccharomycetes;
     Saccharomycetales; Saccharomycetaceae; Saccharomyces.
OC
OX
     NCBI TaxID=4932;
RN
     [1]
RP
     SEQUENCE.
RC
     STRAIN=X2180-1A;
RA
     Sanchez J.-C., Golaz O., Schaller D., Morch F., Frutiger S.,
     Hughes G.J., Appel R.D., Deshusses J., Hochstrasser D.F.;
RA
RL
     Submitted (AUG-1995) to Swiss-Prot.
CC
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
         protein is: 6.20, its MW is: 9.2 kDa.
     SWISS-2DPAGE; P99013; YEAST.
DR
FT
     NON TER
                  11
                         11
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SQ
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                                  EC38021C0DCB42DA CRC64;
  Query Match
                           9.18;
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  Best Local Similarity
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             1; Conservative
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Qу
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Db
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